Dakhleh Oasis Project Monograph 17

Dakhleh Oasis and the Western Desert of Egypt under the Ptolemies

James C. R. Gill

VISIT…

LANZAROTE Caliente.COM

Dakhleh Oasis Project: Monograph 17

DAKHLEH OASIS AND THE WESTERN DESERT OF EGYPT UNDER THE PTOLEMIES

Dakhleh Oasis Project: Monograph 17

DAKHLEH OASIS AND THE WESTERN DESERT OF EGYPT UNDER THE PTOLEMIES

James C. R. Gill

Oxbow Books
Oxford and Philadelphia

Published in the United Kingdom in 2016 by
OXBOW BOOKS
10 Hythe Bridge Street, Oxford OX1 2EW

and in the United States by
OXBOW BOOKS
1950 Lawrence Road, Havertown, PA 19083

© Oxbow Books and James C. R. Gill, 2016

Hardcover Edition: ISBN 978-1-78570-135-1
Digital Edition: ISBN 978-1-78570-136-8

A CIP record for this book is available from the British Library

Library of Congress Cataloging-in-Publication Data

Names: Gill, James C. R., author.
Title: Dakhleh Oasis and the western desert of Egypt under the Ptolemies / James C. R. Gill.
Other titles: Monograph (Dakhleh Oasis Project) ; no. 17.
Description: Oxford ; Philadelphia : Oxbow Books, 2015. | Series: Dakhleh Oasis project: Monograph ; 17 | Includes bibliographical references. | "This book is a modified version of a PhD thesis completed in 2014 in the Centre for Archaeology and Ancient History (now the Centre for Ancient Cultures) at Monash University."
Identifiers: LCCN 2015030002 | ISBN 9781785701351 (hardback)
Subjects: LCSH: Ptolemaic dynasty, 305-30 B.C. | Excavations (Archaeology)--Egypt--Dakhla Oasis. | Pottery, Egyptian. | Dakhla Oasis (Egypt)--History. | Dakhla Oasis (Egypt)--Antiquities. | Egypt--Economic conditions--332 B.C.-640 A.D.
Classification: LCC DT73.D33 G55 2015 | DDC 932.2021--dc23 LC record available at http://lccn.loc.gov/2015030002

All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical including photocopying, recording or by any information storage and retrieval system, without permission from the publisher in writing.

Printed in the United Kingdom by Short Run Press, Exeter.

For a complete list of Oxbow titles, please contact:

UNITED KINGDOM
Oxbow Books
Telephone (01865) 241249, Fax (01865) 794449
Email: oxbow@oxbowbooks.com
www.oxbowbooks.com

UNITED STATES OF AMERICA
Oxbow Books
Telephone (800) 791-9354, Fax (610) 853-9146
Email: queries@casemateacademic.com
www.casemateacademic.com/oxbow

Oxbow Books is part of the Casemate Group

Front cover: Kantharos from Mut al-Kharab, Dakhleh Oasis; © C. Hope.

CONTENTS

Preface vii

Abbreviations ix

List of Illustrations xi

CHAPTER 1 INTRODUCTION

1.1 Introduction 1

1.2 Previous Research 3

1.3 Methodological Approach 7

1.4 Nile Valley Evidence 11

CHAPTER 2 MUT AL-KHARAB

2.1 Introduction 19

2.2 The Ptolemaic Pottery Deposits 22

2.3 A Transitional Late Period/ Early Ptolemaic Period Deposit 36

2.4 Miscellaneous Pottery from Other Trenches 38

2.5 Ptolemaic Ostraka from Mut al-Kharab 39

2.6 Summary of Ptolemaic Activity at Mut al-Kharab 40

CHAPTER 3 PTOLEMAIC POTTERY FROM DAKHLEH OASIS

3.1 Introduction 43

3.2 Previous Research 43

3.3 Presentation of the Material 46

3.4 Fabrics and Wares 47

3.5 Decoration 52

3.6 Manufacturing Techniques 61

3.7 Forms 61

3.8 General Discussion 94

CHAPTER 4 PTOLEMAIC SITES IN DAKHLEH OASIS

4.1 Introduction 97

4.2 Structure of the Catalogue 97

4.3 Site Identification 98

4.4 Site Types 100

4.5 Site Distribution 107

4.6 General Discussion 122

CHAPTER 5 PTOLEMAIC ACTIVITY IN THE WESTERN DESERT

5.1 Introduction 129

5.2 Kharga Oasis 130

5.3 Farafra Oasis 135

5.4 Bahariya Oasis 135

5.5 Siwa Oasis 137

5.6 Minor Oases 140

5.7 Discussion 142

CHAPTER 6 CONCLUSION

6.1 Results of the Study 143

6.2 Beyond the Fayum: Ptolemaic Settlement in the Western Oases 144

6.3 Directing Divine Offerings to the Valley 149

6.4 Gateway Communities, the 'Oasis By-Path' and Long-Distance Trade 151

6.5 A Military 'Buffer Zone' 155

6.6 The Persian Legacy 159

6.7 Conclusion 160

APPENDIX 1 Mut al-Kharab: Context Descriptions 163

APPENDIX 2 Pottery Assemblages from Mut al-Kharab 171

APPENDIX 3 Ptolemaic Pottery Forms: Examples and Parallels 231

APPENDIX 4 Catalogue of Ptolemaic Sites in Dakhleh Oasis 243

APPENDIX 5 Pottery Assemblages from Dakhleh Oasis Sites 309

APPENDIX 6 Catalogue of Ptolemaic Sites in the Western Oases 393

Bibliography 427

Plates 447

PREFACE

This book is a modified version of a PhD thesis completed in 2014 in the Centre for Archaeology and Ancient History (now the Centre for Ancient Cultures) at Monash University. It presents an analysis of recently discovered Ptolemaic pottery from Mut al-Kharab in Dakhleh Oasis, as well as a re-examination of pottery collected by the Dakhleh Oasis Project during the survey of the oasis from 1978–1987. Significantly, this book challenges the common perception that Dakhleh Oasis experienced a sudden increase in agricultural exploitation and a dramatic rise in population during the Roman Period. It argues that such changes had already begun to take place during the Ptolemaic Period, likely as the result of a deliberate strategy directed toward this region by the Ptolemies. Whilst the focus of this study is predominantly on Dakhleh, I have also taken this opportunity to survey the evidence for Ptolemaic activity in the oases of Kharga, Farafra, Bahariya and Siwa. This book therefore represents the first major synthesis of Ptolemaic Period activity in the Egyptian Western Desert.

I am indebted to a number of people who have assisted me along the way. In particular, I would like to thank my PhD supervisor Associate Professor Colin Hope for his guidance, patience and understanding, as well as for providing access to unpublished notes and drawings of the Dakhleh Oasis Project held at Monash University. I would also like to extend my thanks to Dr Gillian Bowen for her invaluable advice.

I am grateful to my friends and colleagues in the Centre for Archaeology and Ancient History who helped to create an enjoyable and stimulating work environment. In particular, I would like to thank Dr Paul Kucera for his companionship during numerous fieldtrips in and around Dakhleh and for the many fruitful discussions over the years. I would also like to thank Dr Christian Knoblauch for assisting in various ways, and for his ongoing friendship and support.

I have had the privilege of working with the Monash University team in Dakhleh for several seasons, and I would like to extend my thanks to all of the members of the Dakhleh Oasis Project who made this experience so enjoyable, and in particular the director of the project Professor Anthony Mills. Whilst in Dakhleh I was able to gain access to unpublished field notes of the DOP, as well as pottery and other archaeological material excavated by the Monash University team.

My field trips to Dakhleh were supported by grants from Monash University and the Near Eastern Archaeology Foundation of the University of Sydney, and I benefited from some additional assistance from the Centre for Archaeology and Ancient History at Monash University. I received further support for my research from Monash University in the form of a Faculty of Arts Teaching and Research Scholarship, which I held from 2009–2010. Whilst preparing this manuscript for publication I held the position of Adjunct Research Fellow in the Centre for Ancient Cultures at Monash University. I am extremely grateful for all of this support.

I wish to acknowledge the many colleagues who kindly answered questions, shared unpublished research and provided copies of their published work. They include Dr Sylvie Marchand, Dr David Klotz, Dr Gábor Schreiber, Dr Alison Gascoigne, Dr Catherine Defernez, Dr Christelle Fischer-Bovet, Dr Gaëlle Tallet, Dr Paola Davoli, Dr Frank Förster and Dr Roberto Buongarzone. I am especially grateful to Professor Olaf Kaper for answering numerous questions about his work on the temples of

Dakhleh. Thanks also go to Dr David Aston and Professor Joseph Manning for their comments on the original thesis. Dr Mark Eccleston kindly allowed me to reproduce his photographs of the oasis fabrics and Bruce Parr provided technical assistance on a number of occasions.

Finally, I would like to thank my parents, family and friends for their encouragement and ongoing support. Above all, I must thank my daughter Alia, who arrived during the writing of the original thesis, and my son Archer, who arrived shortly after its completion. They are a joy and a (pleasant) distraction and they continue to remind me each day of what is most important in life.

None of this work could have been completed without the love, support and understanding of my wife Rachael. It is to her that this book is dedicated.

James Gill

Melbourne

ABBREVIATIONS

GENERAL ABBREVIATIONS

AJA	*American Journal of Archaeology*
ASAE	*Annales du Service des Antiquites de l'Egypte*
BACE	*Bulletin of the Australian Centre for Egyptology*
BIFAO	*Bulletin de l'Institut Français d'Archéologie Orientale*
CCÉ	*Cahiers de la Céramique Égyptienne*
Dendera I–XII	*É. Chassinat and F. Daumas, Le temple de Dendara, 1934–2007, 12 volumes (XI and XII by S. Cauville), Institut français d'archéologie orientale, Cairo*
DOP	*Dakhleh Oasis Project*
EA	*Egyptian Archaeology*
Edfou I–XIV	*É. Chassinat and M. de Rochemonteix, Le temple d'Edfou, 1897–1934, 14 volumes, Institut français d'archéologie orientale, Cairo (see also Kurth et al. 2014)*
FGrHist.	*F. Jacoby (ed.) Die Fragment der griechischen Historiker, 1923–1958, Berlin and Leiden*
F.N.	*Field Notes (Unpublished field notes of the Dakhleh Oasis Project)*
GJ	*The Geographical Journal*
GM	*Göttinger Miszellen*
IFAO	*Institut Français d'Archéologie Orientale*
JARCE	*Journal of the American Research Center in Egypt*
JEA	*Journal of Egyptian Archaeology*
JHS	*Journal of Hellenic Studies*
JNAS	*Journal of North African Studies*
JSSEA	*Journal of the Society for the Study of Egyptian Antiquities*
MDAIK	*Mitteilungen des Deutschen Archäologischen Instituts Abteilung Kairo*
NKOS	*North Kharga Oasis Survey*
Philae I–II	*G. Bénédite, Le temple de Philae, 1893, Volume 1–2, Leroux, Paris*
SB	*Sammelbuch griechischer Urkunden aus Ägypten (1915–1988)*
SCA	*Supreme Council of Antiquities, Egypt (now the Ministry for Antiquities)*
Wb.	*A. Erman and H. Grapow (eds), Wörterbuch der ägyptischen Sprache, 1926–1931, 5 volumes, Leipzig*
ZÄS	*Zeitschrift für ägyptische Sprache und Alterthumskunde*

ABBREVIATIONS USED IN POTTERY CAPTIONS

Rd.	*Rim Diameter*
Bd.	*Base Diameter*
Ht.	*Height*
Pht.	*Preserved height*
MaxD.	*Maximum Diameter*
MinD.	*Minimum Diameter*
Sp.	*Spout*
diam.	*Diameter*
ext.	*Exterior*
int.	*Interior*
dec.	*Decoration*
Reg.	*Registration number*
B/S	*Body Sherd*
UB	*Upper Body*
LB	*Lower Body*
NV	*Nile Valley*

P	*Plain, uncoated surface*
Dp	*Decorated, uncoated surface*
Pol	*Polished, uncoated surface*
B	*Burnished, uncoated surface*
Sc	*Cream-slipped surface*
Dc	*Decorated, cream-slipped surface*
Scp	*Cream-slipped and polished surface*
Scb	*Cream-slipped and burnished surface*
Sr	*Red-slipped surface*
Dr	*Decorated, red-slipped surface*
Srp	*Red-slipped and polished surface*
Drp	*Decorated, red-slipped and polished surface*
Srb	*Red-slipped and burnished surface*
Drb	*Decorated, red-slipped and burnished surface*
Sm	*Mixed slip; red- and cream-slipped surface*
Dm	*Decorated, mixed slip surface*
Pb	*Black surface*

LIST OF ILLUSTRATIONS

FIGURES

1.1 Map of the Egyptian Nile Valley and the Western Desert showing the location of the five major oases, along with minor oases and key settlements.

1.2 The 'Oasis List' of Edfu (after Dümichen 1877: Pl. 3–10).

2.1 Map of Dakhleh Oasis showing the location of Mut al-Kharab (after Kleindienst *et al.* 1999: Fig. 1.1).

2.2 Plan of Mut al-Kharab showing the location of the excavated trenches.

2.3 Plan of the temple area.

2.4 Plan showing trenches in the south-east corner of the temenos.

2.5 Plan of Trench 22 showing truncated walls and the platform.

2.6 Trench 22 plan and sections.

2.7 Reg. 28/032: Potsherd bearing a stamped impression depicting a lizard above three undulating lines, Trench 28 Context 21.

2.8 Reg. 28/054: Iron mattock blade, Trench 28 Context 25.

2.9 Plan of Trenches 28 and 35.

2.10 Trench 28 Room 2 north section.

2.11 Trench 31 plan and section.

2.12 Plan of Trenches 18 and 21.

2.13 Example of plaster mould for the manufacture of glass inlays, Trench 18 foundation deposit.

2.14 Reconstruction of the inlayed image of Amun-Nakht from the gateway at 'Ain Birbiyeh (after Kaper 1997: Fig. 40).

2.15 Reg. 18/180: Bronze statue of Osiris, Trench 18 Context 22.

2.16 Trench 15 plan and section.

2.17 Plan of Trenches 14 and 20 in the north-west corner of the temenos.

3.1 Types of painted linear designs encountered within the corpus.

3.2 Examples of vessels with painted linear designs.

3.3 Types of painted geometric designs encountered within the corpus.

3.4 Examples of vessels with painted geometric designs.

3.5 Types of floral design elements encountered within the corpus.

3.6 Examples of vessels with painted floral designs.

3.7 Examples of vessels with painted anthropoid designs.

3.8 Examples of vessels with applied/modelled decoration.

3.9 Examples of vessels with incised decoration.

3.10 Examples of vessels with impressed decoration.

3.11 Examples of mould-made vessels.

3.12 Overview of vessel measurements.

3.13 Forms 1–2.

3.14 Form 3.

3.15 Forms 4–6.

3.16 Form 7.

3.17 Form 8.

3.18 Form 9.

3.19 Form 10.

3.20 Form 11.
3.21 Forms 12–14.
3.22 Form 15.
3.23 Form 16.
3.24 Forms 17–19.
3.25 Forms 20–21.
3.26 Forms 22–23.
3.27 Forms 24–25.
3.28 Form 26.
3.29 Forms 27–28.
3.30 Forms 29–30.
3.31 Forms 31–33.
3.32 Forms 34–35.
3.33 Forms 36–37.
3.34 Forms 38–39.
3.35 Form 40.
3.36 Form 41.
3.37 Form 42.
3.38 Form 43.
3.39 Form 44.
3.40 Forms 45–46.
3.41 Forms 47–49.
3.42 Form 50.
3.43 Forms 51–52.
3.44 Forms 53–54.
3.45 Form 55.
3.46 Form 56.
3.47 Form 57.
3.48 Forms 58–62.
3.49 Forms 63–66.
3.50 Form 67.
3.51 Forms 68–69.
3.52 Form 70.
3.53 Forms 71–73.
3.54 Form 74.
3.55 Forms 75–76.
3.56 Form 77.
3.57 Form 78.
3.58 Forms 79–80.
3.59 Forms 81–84.
3.60 Forms 85–86.
3.61 Forms 87.
3.62 Form 88.
3.63 Form 89.
3.64 Form 90.
3.65 Forms 91–93.
3.66 Forms 94–98.
3.67 Form 99.
3.68 Forms 100–101
4.1 Examples of single-chambered tomb types of Ptolemaic date found in Dakhleh.
4.2 Examples of multi-chambered tomb types of Ptolemaic date found in Dakhleh.
4.3 Map of Dakhleh Oasis showing general distribution of Ptolemaic sites.
4.4 Map of Dakhleh Oasis showing Site Groups A–N.
4.5 Map showing Group A sites.
4.6 Map showing Group B sites.
4.7 Map showing Group C sites.
4.8 Map showing Group D sites.
4.9 Map showing Group E sites.
4.10 Map showing Group F sites.
4.11 Map showing Group G sites.
4.12 Map showing Group H sites.
4.13 Map showing Group J sites.
4.14 Map showing Group K sites.
4.15 Map showing Group L sites.
4.16 Map showing Group M sites.
4.17 Map showing Group N sites.
4.18 Map showing sites that do not fall within a Site Group.
5.1 Map of Egypt's Western Desert.
5.2 Map of Kharga Oasis showing locations of Ptolemaic sites.
5.3 Map of Farafra Oasis.

5.4 Map of Bahariya Oasis.

5.5 Map of northern Bahariya Oasis showing locations of Ptolemaic sites.

5.6 Map of Siwa Oasis showing locations of Ptolemaic sites.

5.7 Map of the Western Desert showing minor oases and isolated sites.

6.1 Ptolemaic Site Groups in Dakhleh Oasis.

6.2 Areas of new Ptolemaic development.

6.3 Map of the Egyptian Nile Valley and the Western Desert showing the location of the five major oases, along with key settlements and caravan routes.

6.4 Map of the eastern Sahara showing the caravan route that linked Egypt with the Fazzan via the oases of the Western Desert (after Mattingly *et al.* 2003: 2).

6.5 Map of the eastern Sahara showing the relative positions of Carthage, the Fazzan, Cyrenaica, the Western Oases and Egypt (adapted from Mattingly *et al.* 2003: 2).

6.6 Map of Dakhleh Oasis showing sites that might have housed garrisons.

A4.1 Site 01: Sketch plan of Test 1 (after Mills *F.N.* 1978: 16).

A4.2 Site 02: Sketch plan of Tomb 7 (after Mills *F.N.* 1978: 21).

A4.3 Site 03: Plan of the 'chapel' (after Winlock 1936: Pl. XIII).

A4.4 Site 04: Sketch plan of Test 1 (after Hope *F.N.* 1978: 66).

A4.5 Site 04: Sketch plan of Test 2 (after Hope *F.N.* 1978: 72).

A4.6 Site 06: Sketch plan of Test 2 (after Hollet *F.N.* 1978: 2).

A4.7 Dayr al-Haggar (Site 07): Plan of temple and temenos (after Mills 1999b: 26).

A4.8 Site 08: Fragment of a slate bowl from the surface (after Hope F.N. 1978: 94).

A4.9 Site 08: Miscellaneous objects from the surface (after Hope *F.N.* 1978: 92, 98).

A4.10 Sketch plan of Site 10 (after Mills *F.N.* 1978: 27).

A4.11 Amheida (Site 13): General plan (after Davoli 2012: 264).

A4.12 Site 15: Sketch plan of Tomb 2 (after Frey *F.N.* 1979: 22).

A4.13 Site 19: Sketch plan (after Haynes *F.N.* 1979: 14).

A4.14 Site 20: Sketch plan of Tests 1 and 2 (after Mills *F.N.* 1979b: 71).

A4.15 Site 21: Sketch plan (after Leahy *F.N.* 1979: 20).

A4.16 Site 21: Sketch plan of Tomb 2 (after Leahy *F.N.* 1979: 26).

A4.17 Site 22: Sketch plan of stone and baked-brick structure (by author).

A4.18 Site 22: Sketch plan of *pisé* walls (after Mills *F.N.* 1979b: 96).

A4.19 Site 24: Sketch plan of Tomb 1/ Test 1 (after Sheldrick *F.N.* 1979: 37).

A4.20 Site 24: Copper earring and miscellaneous beads from Tomb 1/ Test 1 (after Sheldrick *F.N.* 1979: 37).

A4.21 Site 25: Sketch plan of Tomb 1 (after Brind *F.N.* 1980: 25).

A4.22 Site 26: Sketch plan (after Mills A. J. *F.N.* 1980b: 27).

A4.23 Site 26: Sketch plan of Tomb 3 (after Mills L. F. *F.N.* 1980: 44).

A4.24 Site 27: Sketch plan of Grave 1 (after Brind *F.N.* 1980: 42).

A4.25 Mut al-Kharab (Site 29): General plan.

A4.26 Site 31: Plan and section of Tomb 1 (after Mills A. J. *F.N.* 1980b: 49).

A4.27 Site 33: Plan and section of Tomb 1 (after Mills L. F. *F.N.* 1980: 54, 56).

A4.28 Site 35: Plan of Tomb 1 (after Sheldrick *F.N.* 1980b: 22).

A4.29 Site 36: Sketch plan (after Sheldrick *F.N.* 1980b: 18).

A4.30 Site 37: Ceramic animal figurine from the surface (after Sheldrick *F.N.* 1980b: 27).

A4.31 Site 39: Sketch plan of Test 1 (after Mills L. F. *F.N.* 1980: 66).

A4.32 Site 40: Sketch plan (after Sheldrick *F.N.* 1980b: 32).

A4.33 Ceramic figurine of a horse and rider from Tomb 1 (after Mills L. F. *F.N.* 1980: 74).

A4.34 Site 42: Sketch plan of Tomb 1 (after Mills L. F. *F.N.* 1980: 74).

A4.35 Site 42: Sketch plan and section of Tomb 2 (after Frey *F.N.* 1980: 75).

A4.36 Site 42: Sketch plan of Tomb 3 (after Mills A. J. *F.N.* 1980: 65).

A4.37 Site 45: Plan (after Mills 1981a: Pl. VII).

A4.38 Site 47: Plan and section of Test 1 (after Mills A. J. *F.N.* 1980b: 13).

A4.39 Site 51: Plan of Tomb 1 (after Mills *F.N.* 1981b: 13).

A4.40 Ismant al-Kharab (Site 53): General Plan.

A4.41 Ismant al-Kharab (Site 53): Plan of Main Temple showing remains of an earlier structure (adapted from Dobrowolski 2002: 124 and Hope 2002: 177).

A4.42 Ismant al-Kharab (Site 53): Plan of Area C (after Hope 2002: 174).

A4.43 Site 56: Sketch plan and section of Tomb 1 (after Mills *F.N.* 1981b: 35).

A4.44 Qila el-Dabba (Site 58): Plan of Mastaba II and later tombs in the East Cemetery (after Minault-Gout 1992: 10).

A4.45 Site 61: Plan of the temple (after Winlock 1936: Pl. X).

A4.46 El-Qusur (Site 65): Plan of the temple (after Mills 1983: 137).

A4.47 Ain Birbiyeh (Site 69): Plan of the temple (after Mills 1990: 15).

A6.1 Umm el-Dabadib: General map (after Rossi and Ikram 2006: Fig. 2).

A6.2 ‘Ain el-Labakha: General map (after Rossi and Ikram 2010: Fig. 2).

A6.3 El-Deir: General sketch map (after Dunand *et al.* 2012: Fig. 2).

A6.4 ‘Ain Dabashiya: General map (after Ikram and Rossi 2007: Fig. 4).

A6.5 Hibis: Map of the city and its surroundings (after Winlock 1941: Pl. XXIX).

A6.6 Hibis: general plan of the temple, gateways and excavated structures within the temenos (after Winlock 1941: Pl. XXX).

A6.7 Hibis: ground plan of the temple (after Winlock 1941: Pl. XXXII).

A6.8 Qasr el-Ghueita: Ground plan of the temple (after Darnell *et al.* 2013: Fig. 2).

A6.9 Map of ‘Ain Manawir, Dush, ‘Ain Ziyada and other sites in the surrounding area (after Wuttmann and Marchand 2005: 119, Map 3).

A6.10 ‘Ain Manawir: Map of the settlement showing areas of Ptolemaic settlement (adapted from Wuttmann *et al.* 1998: Fig. 64).

A6.11 Dush: General map (adapted from Reddé *et al.* 2004: Plan 1).

A6.12 El-Tebanieh: Plan of Building 1 (after Fakhry 1950: 85).

A6.13 Qasr el-Megysba: Plan of the temple (after Fakhry 1950: 43).

A6.14 El-Ayoun: Plan of the chapel (after Fakhry 1950: 89).

A6.15 El-Bawiti: Plan of the Temple of Bes (after Hawass 2000: 170).

A6.16 ‘Ain el-Bishmu: Plan of the excavated tomb (after Fakhry 1950: 84).

A6.17 Qaret el-Faragi: Plan and section of the galleries (after Fakhry 1950: 27).

A6.18 Kom Abdel-Karim: Plan of the chapel (after Fakhry 1950: 105).

A6.19 Aghurmi: Plan of the Temple of the Oracle (after Kuhlmann 1988: 16).

A6.20 Abu Shuruf: Plan of the house (after Heinzelmann and Buess 2011: Fig. 6).

A6.21 El-Zeitun: Plan of the tomb-chapel (after Heinzelmann and Buess 2011: Fig. 7).

A6.22 Abul-Awwaf: Plan of Chapel 1 (after Fakhry 1944: 76).

A6.23 Abul-Awwaf: Plan of Chapels 3 and 4 (after Fakhry 1944: 77).

A6.24 Bahrein: Plan of the temple (after Gallo 2006: Fig. 4).

A6.25 ‘Ain Amur: General map of the site (after Rossi and Ikram 2010: Fig. 4).

A6.26 ‘Ain Amur: Plan of the temple (after Rossi and Ikram 2010: Fig. 3).

PLATES

A.1 Mut al-Kharab: General view of temple area looking north-west.

A.2 Mut al-Kharab: General view showing modern tracks.

A.3 Mut al-Kharab: Southern temenos wall looking north-east.

A.4 Mut al-Kharab: Southern temenos wall looking west.

A.5 Mut al-Kharab: General view of Trench 22 looking east, with the mud-brick platform [12] on the left and the temenos wall on the right.

A.6 Mut al-Kharab: Trench 22 looking north-east, showing the corner of the mud-brick platform [12] and the adjacent truncated deposits.

A.7 Mut al-Kharab: Trench 22 looking south, showing the mud-brick platform [12] on the left and truncated walls [21, 67 and 70].

A.8 Mut al-Kharab: Trench 22 looking south-east, showing east section.

A.9 Mut al-Kharab: Trench 22 Context 50/52, showing *in situ* vessels (Numbers 266, 272, 282, 295).

A.10 Mut al-Kharab: Trench 22 Context 50/52, showing *in situ* vessel (Number 313).

A.11 Mut al-Kharab: Trench 28 Context 25, showing *in situ* vessels (Numbers 436–438).

A.12 Mut al-Kharab: Trench 28 Room 2 looking west, showing earlier walls [26, 72] and stone basin [30] in the corner.

A.13 Mut al-Kharab: Trench 35 Context 48 looking east, showing *in situ* vessel (Number 774) lying against face of wall [53].

A.14 Mut al-Kharab: View of mud-brick structure containing Trench 18 looking north-west.

A.15 Mut al-Kharab: Trench 18 looking north, showing the upper part of the foundation deposit.

A.16 Mut al-Kharab: Trench 18 looking north, showing the remains of wooden box within which the foundation deposit was contained.

A.17 Mut al-Kharab: General view of Trenches 14 and 20 looking west, showing the north-west corner of the temenos wall.

A.18 Mut al-Kharab: Trench 20 Context 35, showing *in situ* vessels and the remains of ceramic ovens in the foreground.

B.1 Number 8 (Form 36).

B.2 Number 16 (Form 79).

B.3 Number 51.

B.4 Number 54 (Form 24b).

B.5 Number 57 (Form 41a).

B.6 Number 59 (Form 41b).

B.7 Number 60 (Form 41a).

B.8 Number 112 (Form 41c).

B.9 Number 149 (Form 42).

B.10 Number 167.

B.11 Number 191 (Form 47a).

B.12 Number 195 (Form 36).

B.13 Number 201 (Form 40).

B.14 Number 203 (Form 100b).

B.15 Number 211 (Form 69).

B.16 Number 213 (Form 69).

B.17 Number 220 (Form 64h).

B.18 Number 250 (Form 30a).

B.19 Number 251 (Form 30a).

B.20 Number 282 (Form 65a).

B.21 Number 289 (Form 83).

B.22 Number 291 (Form 94).

B.23 Number 294 (Form 97).

B.24 Number 295 (Form 89a).

B.25 Number 310.

B.26 Number 313 (Form 64a).

B.27 Number 314 (Form 66).

B.28 Number 327 (Form 22).

B.29 Number 337 (Form 56a).

B.30 Number 349 (Form 1).

B.31 Number 375 (Form 9a).

B.32 Number 384 (Form 24a).

B.33 Number 408 (Form 47a).

B.34 Number 437 (Form 74b).

B.35 Number 438 (Form 65c).

B.36 Number 478 (Form 67f).

B.37 Number 487 (Form 80a).

B.38 Number 530.

B.39 Number 531.

B.40 Number 600 (Form 66).

B.41 Number 731.

B.42 Number 752.

B.43 Number 754.

B.44 Number 756.

B.45 Number 760 (Form 4a).

B.46 Number 761 (Form 4a).

B.47 Number 762 (Form 42?).

B.48 Number 766 (Form 45b).

B.49 Number 773.

B.50 Number 774 (Form 79).

B.51 Number 776 (Form 79?).

B.52 Number 777.

B.53 Number 778.

B.54 Number 780.

B.55 Number 781.

B.56 Number 782 (Form 65f).

B.57 Fabric A1.

B.58 Fabric A2.

B.59 Fabric A5.

B.60 Fabric A28.

B.61 Fabric B3.

B.62 Fabric A4.

B.63 Fabric B1/10/15.

B.64 Fabric B1/10/15.

C.1 Reg. 22/042: Limestone statue from Trench 22 Context 29.

C.2 Reg. 22/132: Faience scarab from Trench 22 Context 58.

C.3 Plaster and ceramic moulds from Trench 18.

C.4 Detail of plaster mould from Trench 18.

C.5 Ceramic moulds with Demotic notations from Trench 18.

C.6 Reg. 18/194: Plaster sculpture from Trench 18 Context 22.

D.1 Site 22 (32/405-A8-1): View of the stone foundation wall and overlying baked-brick wall looking north.

D.2 Site 22 (32/405-A8-1): View of the packed-mud walls at the northern end of the site looking south.

D.3 Site 43 (‘Ain el-Azizi): General view of the temple temenos looking north.

D.4 Site 43 (‘Ain el-Azizi): General view of the temple temenos looking west.

D.5 Site 43 (‘Ain el-Azizi): Interior view of the temple temenos looking south-west, showing the test trench running from left to right.

D.6 Site 43 (‘Ain el-Azizi): Detailed view of the south-west corner of the temple temenos looking west.

D.7 Site 45 (31/405-L4-2): General view of the temple looking north-west.

D.8 Site 45 (31/405-L4-2): View of the sanctuary looking north-west.

D.9 Site 46 (31/405-M4-1): General view of the tombs in the west mound looking south-east, with part of Site 45 in the foreground.

D.10 Site 46 (31/405-M4-1): View of a tomb shaft and entrance.

D.11 Site 50 (Beit el-Qaresh): General view of the rock-cut tombs looking south-east.

D.12 Site 50 (Beit el-Qaresh): General view looking south-east, showing the mud-brick mausolea in the foreground and the tombs in the background.

D.13 Site 50 (Beit el-Qaresh): View of a tomb shaft with the remains of a mud-brick superstructure.

D.14 Site 50 (Beit el-Qaresh): View of a tomb shaft showing the carved entrance to the tomb chamber.

D.15 Site 55 (Qasr el-Haleka): General view looking south-west.

D.16 Site 55 (Qasr el-Haleka): General view looking west.

D.17 Site 55 (Qasr el-Haleka): View of south-east corner.

D.18 Site 55 (Qasr el-Haleka): Interior view looking east.

E.1 Number 841 (Form 65e).

E.2 Number 852.

E.3 Pottery assemblage from Site 15 (Tomb 2).

E.4 Number 909 (Form 78).

E.5 Number 917 (Form 57).

E.6 Numbers 912 (Form 52) and 926 (Form 51c).

E.7 Numbers 916 (Form 87) and 914 (Form 84).

E.8 Number 918 (Form 71).

E.9 Number 927 (Form 88).

E.10 Number 928 (Form 78).

E.11 Number 1002.

E.12 Number 1005 (Form 97).

E.13 Number 1009 (Form 67a).

E.14 Number 1018 (Form 83).

E.15 Number 1020 (Form 70).

E.16 Number 1024 (Form 9c).

E.17 Number 1027 (Form 50).

E.18 Number 1030 (Form 77).

E.19 Number 1031 (Form 56b).

E.20 Number 1037 (Form 20).

E.21 Number 1039 (Form 37).

E.22 Number 1053 (Form 30a).

E.23 Number 1040 (Form 81).

E.24 Number 1042 (Form 93).

E.25 Number 1059 (Form 74a).

E.26 Number 1061 (Form 30d).

E.27 Number 1076 (Form 63a).

E.28 Numbers 1084 (Form 38) and 1085 (Form 38).

E.29 Number 1088a (Form 38).

E.30 Number 1091 (Form 82).

E.31 Number 1093 (Form 68).

E.32 Number 1142 (Form 45b).

E.33 Pottery assemblage from Site 42 (Tomb 1).

E.34 Number 1154 (Form 30e).

E.35 Number 1155 (Form 52).

E.36 Numbers 1156 (Form 52), 1158 (Form 51b) and 1157 (Form 52).

E.37 Number 1159 (Form 56a).

E.38 Number 1160 (Form 58).

E.39 Number 1161.

E.40 Number 1226 (Form 24b).

E.41 Number 1266 (Form 25).

E.42 Number 1269 (Form 51d).

E.43 Number 1270 (Form 65f).

E.44 Number 1271 (Form 71).

TABLES

1.1 Toponyms in the 'Oasis List' of Edfu and their proposed modern identifications.

1.2 References to oasis wine in Ptolemaic temple offering scenes.

2.1 List of trenches that have yielded Ptolemaic pottery.

2.2 Key Ptolemaic Pottery Deposits from Mut al-Kharab.

3.1 Ptolemaic fabric descriptions.

3.2 Comparison of fabrics in Trenches 22 and 20.

3.3 Comparison of wares in Trenches 22 and 20.

3.4 Break-down of form classification based on Aperture and Vessel Indices.

4.1 Distribution of Ptolemaic site types in Dakhleh.

4.2 Summary of evidence for Ptolemaic temples in Dakhleh.

4.3 List of Ptolemaic sites in Dakhleh Oasis.

4.4 Additional phases of activity evident at Ptolemaic Sites in Dakhleh Oasis.

4.5 Number of sites in Dakhleh Oasis during the Late Period, Ptolemaic Period and Early Roman Period respectively.

5.1 List of Ptolemaic sites in Kharga Oasis.

5.2 List of Ptolemaic sites in Bahariya Oasis.

5.3 List of Ptolemaic sites in Siwa Oasis.

5.4 List of Ptolemaic sites in the minor oases.

6.1 List of oasis sites that have yielded Ptolemaic coins.

A3.1 Examples of Ptolemaic pottery forms in the corpus.

A3.2 Parallels for Ptolemaic pottery forms in the published literature.

CHAPTER 1

INTRODUCTION

While there is evidence for gradually increasing activity in the oasis during the Late Period and the Ptolemaic centuries, it was not until the advent of the Romans in Egypt that a major influx of people and energy into the Dakhleh Oasis is seen.

Mills (1997: 2).

So far there is very little evidence of any Ptolemaic presence…

In Dakhleh there is abundant evidence of an intense agricultural exploitation during the Roman Period…

van Zoest and Kaper (2006: 11–12).

…the Ptolemaic period is not richly represented. In the Roman period there is an explosion of settlement…

Bagnall and Rathbone (2004: 262).

1.1 INTRODUCTION

There is a common perception in the published literature that Dakhleh Oasis experienced a dramatic increase in population and significant agricultural expansion during the Roman Period (Bagnall and Rathbone 2004: 262; Bard 2008: 308; Davoli 2010: 357–358; 2014: 6; Kaper 1998: 148; Mills 1984: 208–209; 1985: 128; 1997: 2; 1999a: 177; van Zoest and Kaper 2006: 12). This view appears to have largely resulted from the misconception that there is relatively little evidence for Ptolemaic Period activity in the oasis in contrast to the Roman Period remains (Bagnall and Rathbone 2004: 262; Mills 1980: 256; 1997: 2; van Zoest and Kaper 2006: 11); a misconception that also applies to the broader Western Desert of Egypt (Bagnall and Davoli 2011: 139; Bagnall and Rathbone 2004: 249; Kaper 2012a: 717–718). Through an examination of evidence from Dakhleh Oasis, I will challenge the view that the population of the oasis expanded suddenly during the Roman Period and I will demonstrate that a significant population increase had already taken place during the Ptolemaic Period. I will show that there is in fact substantial evidence for increased settlement and agricultural exploitation in Dakhleh during the Ptolemaic Period and I will examine evidence from the other oases of the Western Desert in order to demonstrate that this situation was not unique to Dakhleh.

At its core, this book presents an analysis of Ptolemaic pottery from Dakhleh Oasis, including a detailed study of Ptolemaic forms, fabrics and wares, and an extensive corpus of pottery from Mut al-Kharab and other Ptolemaic sites in the oasis. It also presents a catalogue of Ptolemaic sites from Dakhleh, as well as a second catalogue that focuses on Ptolemaic material from other parts of the Western Desert, specifically the oases of Kharga, Bahariya and Siwa (FIGURE 1.1). It thus represents the first major synthesis of Ptolemaic activity in the Western Desert of Egypt, as well as the most extensive study of Ptolemaic Period pottery from the oases to date.

Written sources concerning the oases are much more abundant for the Roman Period than for the Ptolemaic Period. There are some Ptolemaic ostraka from Dakhleh and Kharga that have been

published (e.g. Kaplony-Heckel 1997; 2000; Nur el-Din 1982; Vittmann 2012), along with inscriptional evidence from the temple of Qasr el-Ghuieta in Kharga (Darnell *et al.* 2013), and of course the famous Edfu Oasis List (Dümichen 1877: 23ff, Pl. 3–10); however, such evidence is relatively rare and presents only a limited picture. Clearly, if we are to develop our understanding of Ptolemaic activity in the Western Desert then a different approach is needed, one that does not rely on the inscriptional evidence alone. Pottery is therefore the focus of this study as it is the most abundant form of evidence available and because it can be used as a key tool for dating Ptolemaic sites, whilst also informing such aspects as site function, trade and cultural interaction. Even so, I have not concentrated on pottery exclusively and I have endeavoured to incorporate a wide range of archaeological evidence, including both material culture and inscriptional evidence. Despite its abundance, the Ptolemaic pottery from Dakhleh has remained, until now, largely unpublished and our understanding of this material has been rather limited. Therefore, one of the key aims of this study has been to establish a corpus of Ptolemaic pottery from the oasis, which I have then used as a springboard for discussing Ptolemaic activity in the oasis more broadly.

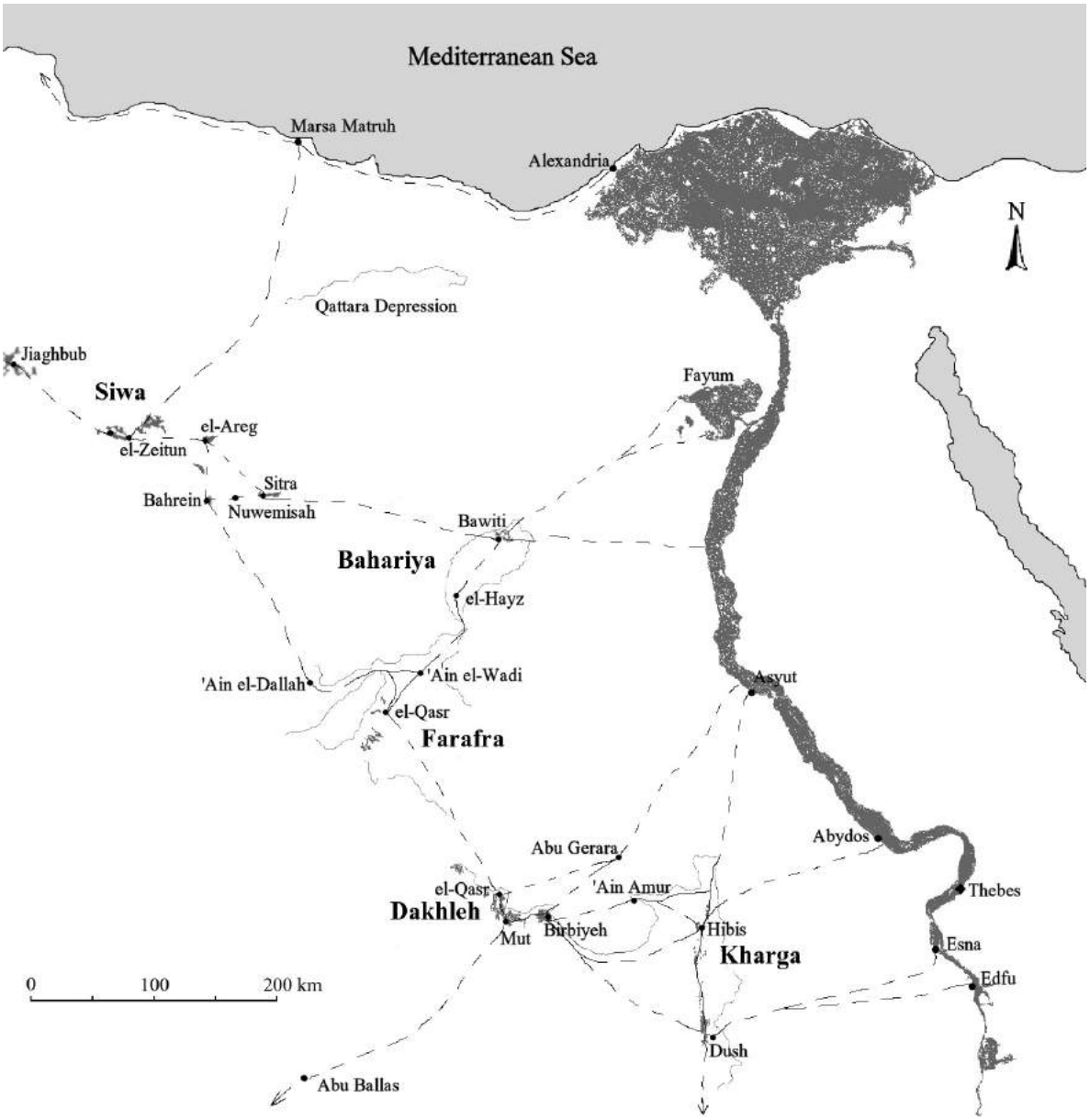


FIGURE 1.1 Map of the Egyptian Nile Valley and the Western Desert showing the location of the five major oases, along with minor oases and key settlements.

1.2 Previous Research

Dakhleh Oasis

The Dakhleh Oasis Project (hereafter DOP), under the direction of Anthony Mills, has been documenting the antiquities of the oasis since 1978 (Mills 1979a). Evidence for Ptolemaic Period activity in Dakhleh was already noted during the initial years of the project (Hope 1981: 233; Mills 1980: 254; 1981: 181), although it was considered quite limited compared to the abundant Roman Period remains (Mills 1980: 256; cf. also Churcher and Mills 1999: 260–263). This apparent difference has encouraged scholars to conclude that Dakhleh experienced a sudden and dramatic increase in population during the Roman Period, primarily due to the introduction of new irrigation technology and agricultural practices (e.g. Kaper 1998: 148; 2012a: 718, 730; Mills 1984: 208–209; 1985: 128; 1999a: 177).

The problem with this conclusion is that most of the sites recorded during the initial survey of the oasis, conducted by the DOP from 1978–87, were dated on the basis of the pottery remains (Mills 1981: 182), and at that early stage knowledge of the pottery industry in the oasis was only beginning to be developed (Hope 1979; 1980; 1981; 1983). Pottery dating to the Ptolemaic Period was not easily recognised, nor was it easily distinguished from Roman Period pottery. In early publications dealing with the pottery from Dakhleh (Hope 1980; 1981), the term 'Roman' was used loosely, with the understanding that it was likely to also include material dating to the late Pharaonic or Ptolemaic periods, and with the expectation that it could be later refined (Hope 1981: 233–234).

As research continued, this expectation proved to be correct, as some of the pottery published in the early reports was subsequently re-assigned a Ptolemaic date by Colin Hope (1999: 230). Additional work on the Ptolemaic pottery from Dakhleh was undertaken by Shirley Patten as part of an unpublished PhD thesis completed at Macquarie University (Patten 1999). Her aim was to create a typology of Late Period, Ptolemaic and Roman pottery from the oasis, and although she was largely successful in identifying the key features of both Late Period and Roman Period pottery, Patten's attempt to distinguish Ptolemaic pottery was hindered by the lack of well-stratified Ptolemaic deposits available for study. Further research was undertaken by Mark Eccleston in an unpublished PhD thesis completed at Monash University in 2006, which focused on high-temperature industries of the Ptolemaic and Roman periods in Dakhleh. Despite his focus on the Ptolemaic and Roman pottery industries in the oasis, Eccleston was likewise limited by the lack of available Ptolemaic material and as such the majority of his research deals with the Roman Period industries. Until recently, the studies of Hope (1999), Patten (1999) and Eccleston (2006) have represented the extent of our knowledge concerning the Ptolemaic pottery industry in Dakhleh. Since the latter two studies have remained unpublished, it is the short overview by Hope (1999: 230) that has remained the key reference for Ptolemaic pottery in the oasis, although this is now clearly in need of revision.

Recent excavations at Mut al-Kharab have yielded large amounts of pottery, which has been identified as Ptolemaic on the basis of comparative material from the Nile Valley (cf. Gill 2012b). This has provided an opportunity to gain a much better understanding of the Ptolemaic material, and to build upon the studies of Hope, Patten and Eccleston. A small selection of Ptolemaic pottery has been published in the preliminary reports on the excavations at Mut al-Kharab (Hope 2005a: 44–45, Figs 15–16; Hope *et al.* 2006: 37–40, Figs 14–16; Hope *et al.* 2009: 59–63, Fig. 9), although the discussion of this material is understandably brief. More detailed studies have appeared recently and are a direct result of research conducted for the current study (Gill 2012a; 2012b; *Forthcoming a; c*). Through an analysis of the Ptolemaic pottery from Mut al-Kharab it has been possible to improve greatly our understanding of this material and to create a corpus that will be used as the basis for all future research. This analysis has also enabled a re-examination of pottery from other sites in the oasis, much of which was collected during the initial survey by the DOP, with the result that a large amount of this material has been redated as Ptolemaic.

In addition to these studies of Ptolemaic pottery, a few studies focused on other types of Ptolemaic evidence from the oasis have also appeared in the published literature. These include a study of skeletal remains from the cemetery of Qila al-Dabba, which are thought to be of Ptolemaic date (Dzierzykray-Rogalski 1980), and a study of cartonnage coverings from Cemetery K1 at Kellis, some of which have been dated stylistically to the Late Ptolemaic Period (Schweitzer 2002), although the most important studies are arguably those dealing with Ptolemaic ostraka. A cache of 29 Demotic ostraka of Late Ptolemaic date were discovered at Qaret el-Muzawwaqa in 1972 by Ahmed Fakhry, prior to the work of the DOP, and were published a decade later by Mohammed Nur el-Din (1982). In the past decade, hundreds of Ptolemaic ostraka in both Demotic and Greek have been discovered at Mut al-Kharab (Hope 2005a: 42–43; Hope *et al.* 2006: 38), a selection of which has been recently published by Günter Vittmann (2012), whilst a small number of Ptolemaic ostraka from Amheida have also been published recently (Bagnall and Ruffini 2012: Nos 278, 280, 315).

THE WESTERN OASES

The situation in the published literature is much the same for the other oases as for Dakhleh: Ptolemaic material is documented, yet it is usually not examined nor published in detail. Studies that deal with the oases regularly report finds of textual and/or archaeological material of Ptolemaic date, yet for the most part, the implications of this evidence have not really been considered. A notable exception is the recent study by Darnell, Klotz and Manassa (2013), which presents some interesting conclusions concerning the exploitation of the oases during Ptolemaic times.

Evidence for Ptolemaic Period activity in the Western Desert of Egypt was already noted at the end of the 19th century, as Arthur Silva White (1899: 236-238) retrieved a bronze coin of Ptolemy I from the tombs at Gebel el-Mawta in Siwa. Likewise, Harding-King (1913: 457; 1925: 211, 214) discovered bronze coins of apparent Ptolemaic date at the isolated site of Abu Gerara located in the desert north of Kharga Oasis.

During the early 20th century, excavations conducted at Hibis in Kharga by Herbert Winlock for the Metropolitan Museum of Art, revealed what are arguably some of the most important Ptolemaic remains to be found in the Western Desert. This site comprises a temple complex of Persian date, which was subsequently expanded during the Ptolemaic Period, and which was surrounded by a large settlement. Whilst reports on the excavations (Winlock 1909; 1910; 1941), as well as volumes on the Greek inscriptions and the decoration of the temple were published (Davies 1953; Evelyn-White and Oliver 1938), the vast majority of the archaeological material revealed in the excavations was not subject to detailed study. Since then, further studies on the inscriptions and graffiti from the temple have appeared (Cruz-Uribe 1988; 2008; Klotz 2006), as well as a study on the Demotic ostraka from the site (Kaplony-Heckel 1997; 2000); however, much of the archaeological material, such as the pottery, remains to be studied.

The first person to attempt a broad survey of the archaeological remains of the Western Desert was Ahmed Fakhry, working during the middle part of the 20th century (Fakhry 1942; 1944; 1950; 1973; 1974). Fakhry described many of the visible antiquities of the oases, and he also conducted clearance and excavation at a large number of sites (APPENDIX 6 for examples). In some cases, Fakhry's descriptions provide the only information we have for ancient sites in the oases, such as at Meshendid in Siwa (Fakhry 1944: 68) and el-Gazayer in Bahariya (Fakhry 1942: 35; 1974: 105–106), although the situation is beginning to change in recent years as more and more archaeological projects are established in the oases. Fakhry identified many sites that he dated to the Ptolemaic Period, although more often than not his reasons for such a date are not clear. Some monuments were dated on stylistic grounds, whilst others were dated on the basis of associated material culture, such as pottery; however,

he rarely provided descriptions or illustrations of this material, so it is difficult to be sure of the reliability of his dating.

In addition to the work of Fakhry, other publications have appeared that present useful summaries of the antiquities of the oases, including a significant number of Ptolemaic Period monuments. These include the surveys of Porter and Moss (1952), Aufrère *et al.* (1994), Wilkinson (2000) and Bagnall and Rathbone (2004), as well as more general guides to the antiquities of the oases, such as those by Willeitner (2003), Dunand and Lichtenberg (2008), and Vivian (2008). These studies provide useful descriptions of the better known Ptolemaic monuments, such as the temples of Qasr el-Ghueita and Hibis, but for the most part they reiterate the work of earlier scholars and lack detailed analysis. Bagnall and Rathbone (2004: 249) noted that the Ptolemaic remains are 'enormously outweighed' by those dating to the Roman Period, although they did not explain whether this is the result of differences in preservation, or whether it reflects a real discrepancy between the Ptolemaic and Roman Period settlement of the oases.

A useful synthesis of Ptolemaic, Roman and Byzantine activity in the oases, which focused on Greek inscriptional and papyrological evidence, was published in 1987 by Guy Wagner. The Ptolemaic evidence discussed in this volume is not particularly abundant, but it did demonstrate that the Southern Oasis at least was incorporated into the Egyptian administration at this time and was governed by officials from the Nile Valley (Wagner 1987: 142–143; cf. Section 1.4 below).

Numerous studies dealing with the archaeology of the oases have been published in the last three decades, many of which are of use to the current study. Much of this work has resulted from the ongoing investigation of the oases by large scale archaeological projects, such as the DOP. These projects are usually interdisciplinary and are aimed at recording a range of archaeological and textual evidence from almost all periods of history. Despite the fact that material of Ptolemaic date has been recorded by many of these projects, this material is usually not the focus of investigation, often being ignored in favour of the Pharaonic or Roman Period remains.

A great deal of work has been conducted throughout the oases by the Egyptian Ministry of Antiquities (formerly the Supreme Council of Antiquities), although very little of this work has been published (cf. Hawass 2000; Yamani 2002; Bashendi 2012; Ibrahim 2012). Perhaps the most famous site under investigation by the Ministry of Antiquites is the so-called 'Valley of the Golden Mummies' in Bahariya (Hawass 2000). Elsewhere in Bahariya, *l'Institut Français d'Archéologie Orientale* (l'IFAO) has conducted work at a number of sites around El-Qasr/Bawiti, such as at Qasr 'Allam (Colin 2011) and Qaret el-Toub (Charlier *et al.* 2012; Colin *et al.* 2000), whilst a Czech mission has undertaken work in the south of the oasis in the vicinity of el-Hayz (Dospěl and Suková 2013).

Farafra has recently become the subject of investigation by an Italian mission from the University of Tuscia, although only a small amount of this work has been published so far (cf. Buongarzone *et al.* 2010; Finocchi and Medaglia 2011). In Siwa, the Ammoneion Project, under the direction of Klaus Peter Kuhlmann for the *Deutsches Archäologisches Institut*, has conducted ongoing exploration of the acropolis of Aghurmi, as well as the adjacent sites that once formed part of the Ammoneion complex (Kuhlmann 2010a; 2010b; 2011). In the eastern part of Siwa, a team from the University of Cologne has undertaken geophysical survey on the east bank of Lake Zeitun where the remains of several settlements are located (Heinzelmann 2009; Heinzelmann and Buess 2011). South-east of Siwa in the small oasis of Bahrein, an Italian mission from the University of Turin has investigated the remains of a temple of Late Period/Ptolemaic date (Gallo 2003; 2006).

The North Kharga Oasis Survey (NKOS), directed by Salima Ikram and Corinna Rossi, has been documenting various sites in the northern part of Kharga since 2001 (Ikram and Rossi 2004; 2007; Rossi and Ikram 2006; 2010). The cemeteries at the site of El-Deir are being studied by the Alpha Necropolis Project, under the direction of Françoise Dunand and Roger Lichtenberg (Dunand *et al.*

2010; 2013), whilst the same project has also conducted work in the cemeteries at Dush (Dunand *et al.* 1992; 2005), ‘Ain el-Dabashiya (Dunand *et al.* 2013) and ‘Ain Labakha (Ibrahim *et al.* 2008). El-Deir has also recently become the focus of a survey project, directed by Gaëlle Tallet, which has begun to explore the ancient settlement (Tallet *et al.* 2012). In the south of Kharga, l’IFAO has worked extensively at the adjacent sites of ‘Ain Manawir and Dush (Wuttmann *et al.* 1996; 1998), whilst a survey of the surrounding region has also been undertaken (Wuttmann in Mathieu 2002: 482–483; 2003: 525; 2004: 621–623). In the central part of the oasis, an American mission from Yale University directed by John Darnell has been working at the Ghueita temple and in the surrounding area (Darnell 2007b; Darnell *et al.* 2013; Klotz 2012).

Studies of Ptolemaic Egypt

The Western Oases feature very little within the published literature dealing with the Ptolemaic Egypt. For example, Samuel (1983; 1989), Turner (1984), Chauveau (2000), Lloyd (2000), Mueller (2006) and Bingen (2007), all neglect to include the Western Desert in their studies. Granted, a great deal of the Ptolemaic evidence from the oases has come to light only in the past two decades, well after some of these studies had appeared, yet a significant amount of evidence had in fact already been published by both Winlock (1936; 1941) and Fakhry (1938; 1939a; 1939b; 1940; 1941a; 1941b; 1942; 1944; 1950; 1973; 1974), and had been collected together by Porter and Moss (1952).

Perhaps the most notable omission is to be found in Katja Mueller’s (2006) study *Settlements of the Ptolemies*. In this study, Mueller (2006: 46–55) provided a region by region analysis of Ptolemaic settlement distribution, including the regions of Lower Nubia and the Red Sea coast, and yet the oases of the Western Desert were not included. This is most likely due to the paucity of Ptolemaic inscriptional evidence from the region, particularly that for settlements; however, given the evidence that we do have, it seems strange to ignore the oases entirely. In fact, the oases do not even appear on the general map of Egypt (Mueller 2006: 7).

Whilst many authors do exclude the Western Desert and its oases from their studies, there are a few exceptions. Consider, for instance, this statement by Alan Bowman in *Egypt After the Pharaohs* (1986):

> The western desert was punctuated by a series of oases, supporting a small population and accessible by tracks from the river valley; but their secure occupation was an important factor in controlling incursion or potential disruption by bands of desert nomads.
>
> Bowman (1986: 12).

Here Bowman was probably referring specifically to the chain of forts constructed throughout the oases during the Late Roman Period (for which see Kucera 2010; Rossi 2012), and although it is entirely possible that this statement could also apply to the Ptolemaic Period, Bowman does not expand on this idea any further.

Both Günther Hölbl (2001) and Werner Huß (2001) acknowledged the presence of Ptolemaic temple inscriptions at Hibis and Qasr el-Ghueita in Kharga, as well as the existence of a temple of Alexander the Great in Bahariya (Hölbl 2001: 87 and Appendix; Huß 2001: 377, 457), and yet they did not really explore the implications for this evidence. Whilst both authors pointed out that the early Ptolemaic rulers attempted to control the region of Cyrenaica in order to gain access to the trade coming from the African interior (Hölbl 2001: 18; Huß 2001: 103–104), neither one considered whether a similar situation may have applied to the Western Oases.

Joseph Manning (2010; 2011a; 2011b) is slightly more explicit when he discusses the role of the oases in the Ptolemaic Period:

> Ptolemy II's expansion into the western and eastern deserts and to the Red Sea coast also shows that southern Egypt and the roads leading to the coast and through the oases to the west were vital to the early Ptolemaic state's interests.
>
> Manning (2010: 106; cf. also 2011b: 5).

> Because Ptolemaïs sat at an important terminus for trade routes from the western oases chain, which led west and north out to Cyrenaica, and from Nubia to the south, its presence served as a kind of gate, controlling trade along the southern Nile.
>
> Manning (2010: 108; cf. also 2011b: 6).

> The region [around Ptolemaïs], and the chain of oases in the western desert, important already in the Persian Period, became increasingly so under the Ptolemies.
>
> Manning (2010: 111).

> Ptolemaic state expansion was impressive, and the trade networks that were developed linking Alexandria to transit points in the oases and the Nile valley are a striking feature of the third century BC.
>
> Manning (2011a: 313).

These statements are certainly logical considering the Ptolemies' desire to control trade coming from both Cyrenaica and the Red Sea, as well as the importance placed on settlements such as Ptolemais and Edfu; however, whilst Manning does present evidence from the Eastern Desert to support these claims, he does not provide evidence from the Western Desert, despite his acknowledgement that 'archaeological activity in the western desert and oases has been extensive' (Manning 2010: 9, n. 21). By way of example, Manning (2010: 9, n. 21) mentions only the so-called 'Valley of the Golden Mummies' in Bahariya (for which see Hawass 2000), and notably does not discuss any of the archaeological remains from either Dakhleh or Kharga.

1.3 Methodological Approach

The idea that Dakhleh experienced a sudden rise in population during the Roman Period, facilitated by increased agricultural exploitation, appears to stem from a single fundamental premise: that there is substantial evidence for Roman Period settlement in the oasis, and conversely, that there is very little Ptolemaic evidence (Bagnall and Rathbone 2004: 262; Mills 1980: 256; van Zoest and Kaper 2006: 11). This premise is based on information found in the published literature, principally in the index of sites surveyed by the DOP, which is included in the volume *Reports from the Survey of the Dakhleh Oasis 1977–1987*, where a total of 214 Roman Period sites are listed in contrast to only 17 Ptolemaic Period sites (Churcher and Mills 1999: 260–263). It is this discrepancy that has led scholars to propose that the Roman Period in Dakhleh was a time of huge agricultural expansion and population increase, as can be seen in the following statements:

> So far there is very little evidence of any Ptolemaic presence – it probably lies buried under the Roman Period remains…In Dakhleh there is abundant evidence of an intense agricultural exploitation during the Roman Period, especially in the western part of the oasis.
>
> van Zoest and Kaper (2006: 11–12).

> …the Ptolemaic Period is not richly represented. In the Roman period there is an explosion of settlement: more than 200 sites of all sorts have been registered…
>
> Bagnall and Rathbone (2004: 262).

> In the Roman period, the Southern Oasis witnessed a population growth of significant proportions…the numerous archaeological remains from the Roman period in the area indicate an explosive expansion…
>
> Kaper (1998: 148).

> While there is evidence for gradually increasing activity in the oasis during the Late Period and the Ptolemaic centuries, it was not until the advent of the Romans in Egypt that a major influx of people and energy into the Dakhleh Oasis is seen…There are about 250 sites dating to this period – more than one-third of all indexed sites in the oasis.
>
> Mills (1997: 2).

> Whatever activities were conducted during the first millennium B.C. in central and eastern Dakhleh, there is no doubt about the rapid population expansion of western Dakhleh in the first century A.D.…To judge from the number and size of sites and from the general spread or distribution of Roman potsherds over western Dakhleh, land use and perhaps also the population was greater than at any other time, including the present.
>
> Mills (1984: 208).

Now, these are perfectly reasonable statements assuming that the numbers published in the *Reports* volume are correct, and herein lies the problem. If we take into account the method by which the Ptolemaic and Roman sites were identified by the DOP, including the nature of the preserved remains, the recording process, and the way in which the sites were dated, it is clear that these results should not be taken at face value. Consider, for instance, that pottery was the main source of evidence for dating sites during the DOP survey (Mills 1981: 182), and yet at the same time, our understanding of this material was incomplete, with the result that:

> Until work on the Dakhleh ceramics has progressed much further it is to be understood that such terms as 'Roman' and 'Christian' are used very loosely, and that material attributed to the former period may include pottery used during the rule of the Ptolemies and possibly also the late Pharaonic period…
>
> Hope (1981: 234).

This in itself is not a problem, as the expectation was that such designations would later be refined as more information became available and our understanding of the pottery improved; however, it did lead to many sites being dated as either 'Roman' or 'Christian' when in fact they should instead have been dated as late Pharaonic or Ptolemaic. This in turn had a direct effect on the way in which other sites were dated, as is clearly demonstrated in the following statement:

> There are, of course, some sites which can readily be placed in one or another period because of the presence of some inscriptional or other historical evidence…There are many more sites…which cannot certainly be designated to one or another specific period. Because of the particular abundance of sites in Dakhleh dating from the first millennium A.D., this cultural continuum is particularly apparent and unless there is some definite reason for assigning a site to one or another period, Roman/Christian is usually the better designation.
>
> Mills (1981: 182).

The analysis of pottery from Dakhleh has continued and the dating of this material has been refined (e.g. Gill 2012a; 2012b; *Forthcoming a*; *c*; *d* for Ptolemaic pottery); however, the results of the DOP survey have not been revisited. The index of sites published in the *Reports* volume (Churcher and Mills 1999) is now rather outdated and in need of revision, and yet this apparently continues to be regarded as an accurate representation of the relative proportion of Ptolemaic and Roman sites in the oasis. Consider, for instance, this relatively recent statement by Olaf Kaper in *The Oxford Handbook of Roman Egypt*. Discussing the oases in general, he says:

> In the Ptolemaic period the invention of the waterwheel…enabled the farmers to lift water efficiently to higher levels, and thus cultivate fields at greater distances from the wells…In this way, the agricultural potential of the oases was enlarged considerably and it made possible the rapid population growth that is visible in the archaeological remains of the early Roman period.
>
> Kaper (2012a: 718)

And later, in relation to Dakhleh specifically:

> The building of new temples took place largely in the second half of the first century CE…which must correspond to the period of growth of the settlements to which they belong. Already in the Ptolemaic period there was much activity, as is visible in the abundant ceramics and ostraka from that period found at Mut el-Kharab, but I think that the temples may have been of mud-brick at this time, or reused older buildings as at Amheida…Only Ain Birbiya has a newly built stone temple of Ptolemaic date, albeit without decoration.
>
> Kaper (2012a: 730).

Clearly, Kaper sees the apparent increase in temple building during the Roman Period, combined with an apparent lack of Ptolemaic temple construction, as inextricably linked with the sharp population rise that appears to have occurred in Dakhleh during the Roman Period; however, considering that most of the stone temples in Dakhleh are almost completely destroyed, it seems dangerous to draw

broad conclusions from the small amount of evidence that is preserved. Certainly, we have evidence for Roman temples at 'Ain Birbiyeh, Dayr al-Haggar and Ismant al-Kharab (two temples) (Kaper 1998: 149, Table 5), and now also at Amheida (Kaper 2012a: 730); it is also probable that Roman temples once stood at Mut al-Kharab and 'Ain al-Azizi. Yet, I would argue that, given the fact that the temples at the latter two sites are completely destroyed, as well as the relatively poor preservation of the temple at Amheida, it is very likely that Ptolemaic temples also once stood at some of these sites. There is even less justification for assigning the mud-brick temples a Roman Period date:

> The dating of the mud-brick temples has not been established with certainty in all cases as very few have been excavated, but many appear to be Roman in date.
>
> Kaper (2012a: 722).

This is based on the assumption that none of the mud-brick temples 'ha[s] as yet yielded archaeological evidence from before the Roman period' (Kaper 1998: 150), yet whilst the majority of them are listed as Roman in the index of surveyed sites (Churcher and Mills 1999: 260–263), they are dated as such on the basis of the associated pottery. The dating of the pottery, as I have shown above, cannot be entirely relied upon, and it emphasises the need for us to re-evaluate this evidence. As we shall see, in some cases a re-examination of pottery from these temples points to activity during both the Ptolemaic and Roman periods.

This fixation on the Roman Period as a time of great expansion and sudden population increase is not restricted to Dakhleh alone, but is also encountered in relation to the other oases. This seems to directly result from the view that the Ptolemaic remains are 'enormously outweighed' by those of the Roman Period (Bagnall and Rathbone 2004: 249), as is likewise thought to be the case for Dakhleh; however, it is not clear why some scholars choose to reject the possibility that the Ptolemies were also interested in exploiting the resources of the oases, such as is demonstrated in the following statement:

> The dilemma for Rome was to acquire additional land resources from which to extract revenue. They needed a new 'Fayum' with all of its untapped wealth and available resources. They found it in the oases of the western desert. Areas in and around Kharga, Dakhla, Farafra, and Bahriya each experienced expansion of populations and recovery of desert lands for agriculture. How was this possible? Was there some new technology acquired? No, on the contrary it was simply an administrative decision accompanied by an influx in revenue for infrastructure. The main infrastructure expansion was the digging of wells in the desert depressions around the oases, tapping into the local existing ground-water supplies (Kaper, 1998). One might ask why was this not done earlier, and we can answer that it was. We saw during the Saite and Persian Period a similar expansion (albeit on a much smaller scale 600 years earlier). In that case qanats (underground aqueduct systems) were engaged. This was a decision by the state to expand the area's agricultural means, but during the Ptolemaic Period this process was not continued. The reason lay with the focus of the state. For the Ptolemies attention was paid to the interactions with the rest of the Hellenic states in the eastern Mediterranean. There was little incentive to view the oases as an area of potential wealth, especially in light of other issues as noted above. For the Romans it was clear that Egypt was not going to be interacting militarily or politically with the other

> Hellenic areas. It was now a part of the Roman Empire, and, in that situation, economic resources and their extraction were prioritized…
>
> Cruz-Uribe (2010: 502).

It is illogical to suggest that the Ptolemies did not see the oases as a source of potential wealth, especially given the fact that the Saite and Persian rulers had already begun to exploit the region before them. This view fails to take into account the activities of the early Ptolemies in Lower Nubia (Hölbl 2001: 161–162, 189) and on the Red Sea Coast (Hölbl 2001: 56), as well as their administration of Cyrenaica (Hölbl 2001: 58–60; Mueller 2006: 145–146), all of which point to rulers not solely concerned with affairs in the Eastern Mediterranean, but also interested in exploiting resources and trade opportunities closer to home. As we shall see, the idea that the Ptolemies had 'little incentive to view the oases as an area of potential wealth' is not supported by the evidence.

Approach of the Study

In order to reconsider the idea that Dakhleh experienced an explosion of population growth during the Roman Period, I will challenge the fundamental premise that there is very little Ptolemaic Period evidence from the oasis in comparison to the Roman Period remains. Only through a re-analysis of the pottery can this be achieved, as this has been the main source of evidence for dating sites identified by the DOP.

The starting point for my analysis is the site of Mut al-Kharab, as it has yielded an abundant amount of Ptolemaic pottery, which has been dated on the basis of comparisons with Ptolemaic pottery from the Nile Valley. Mut al-Kharab has also yielded large numbers of Ptolemaic ostraka in Demotic and Greek, as well as other types of material culture of similar date, which together with the pottery provide a unique opportunity to develop our understanding of one of the most important Ptolemaic sites in the oasis. Through an analysis of the pottery from Mut al-Kharab, I have been able to identify the key features of the Ptolemaic pottery industry in Dakhleh, and thus reassess the pottery collected during the DOP survey. This has enabled me to refine the dating for much of this material, and importantly, allowed me to identify a significant amount of Ptolemaic pottery that had previously gone unrecognised. It has thus been possible to propose new dates for many of the sites recorded during the DOP survey, which in turn has led to a revision of the DOP Site Index (Churcher and Mills 1999). I have also taken into account evidence that has come to light since that publication appeared, in order to create a detailed catalogue of Ptolemaic sites in the oasis.

Whilst this study focuses largely on Dakhleh, I have chosen to go a step further and also examine evidence for Ptolemaic activity from elsewhere in the Western Desert, namely the oases of Kharga, Farafra, Bahariya and Siwa. The advantage of such a regional approach is two-fold: it enables me to compare Dakhleh with the other oases so as to ascertain whether the situation in Dakhleh was unique, and it allows me to consider the broader context of the Western Desert and examine how this region fitted within the political, social and cultural sphere of Ptolemaic Egypt. This kind of regional approach has been implemented in the Eastern Desert where it has been met with success (Alcock *et al.* 2003: 354–356, 362–367).

1.4 Nile Valley Evidence

Before examining Ptolemaic evidence from the oases, we must first consider evidence from the Nile Valley. This comprises both archaeological and inscriptional evidence, which points to administrative, religious and economic connections between the oases and the Nile Valley. Whilst it is not the focus

of this study, it is necessary to consider briefly this evidence, in order to build a more complete picture of Ptolemaic Period activity in the Western Desert, and to provide an alternate and perhaps contrasting perspective to that gained from an exclusive oasis/Western Desert focus. In the following section I will outline both archaeological and inscriptional evidence from the Nile Valley, in order to illuminate the role of the Western Desert within the context of Ptolemaic Egypt and to provide information about the way in which the Ptolemies administered the region.

ARCHAEOLOGICAL EVIDENCE

The archaeological evidence for any form of contact between the Nile Valley and the oases during the Ptolemaic Period is rather limited. The main problem is that in terms of cultural influences the exchange was mostly one way. Unlike the oases, which, as we shall see in the following chapters, generally emulated Egyptian architecture and material culture, albeit with local idiosyncrasies, the Nile Valley does not appear to have been greatly impacted on by oasis cultural influences, at least in terms of what is preserved in the archaeological record. The one exception is the presence of pottery vessels of oasis origin at sites in the Nile Valley.

Vessels manufactured in oases wares have been found at several sites in the Nile Valley, although the number of published examples is not overwhelming. These vessels are usually kegs or flasks, which are specialised vessels designed for storage and transport, and which are a type that originated in the oases (Hope 2000; Marchand 2007; and now Gill *forthcoming d*). There are examples from Elephantine (Aston 2007: 442);[1] Abydos;[2] Karnak (Masson 2011: 283–284, Figs 94–95); Karnak North (Hope 2000: Figs 6g–i); Tebtynis (Marangou and Marchand 2007: Figs 99–101); as well as from the desert routes linking Kharga and Thebes (Darnell 2000: Fig. 16). Vessels of this kind were probably used to transport products such as wine and oil from the oases into the Nile Valley (cf. below and CHAPTER 6.3).

INSCRIPTIONAL EVIDENCE

In terms of Nile Valley sources that deal with the oases, the key inscription is the famous 'Oasis List', found on the interior of the girdle wall of the temple of Edfu. This list, which has been dated to the reign of Ptolemy VIII (Aufrère 2000: 79) or Ptolemy IX (Kaper 1992: 117), depicts the king and queen offering to Horus of Edfu, followed by seven identical fecundity figures, which are personifications of the oases (FIGURE 1.2). Each oasis is accompanied by a caption listing its names and relative position, together with a short text relating to the myth of Osiris (Aufrère 2000), except in the case of the first and fifth oases, which do not include a mythological text. The complete inscription was first published and discussed by Dümichen (1877: 23ff, Pl. 3–10) and later recorded by Chassinat (1931) in *Le Temple d'Edfou* (*Edfou* VI: 19.12–25.10), and has recently been republished (Kurth *et al.* 2014).[3] The inscription has continued to be the subject of much discussion and debate; see, for example, the discussions by Sethe (1920), Winlock (1936: 58), Fakhry (1939b: 640–641), Osing (1985), Kuhlmann (1988: 88–92), Kaper (1992) and most recently Aufrère (2000), who also provided a complete translation (Aufrère 2000: 122–124). The various toponyms preserved in the inscription were also discussed by Giddy (1987: 42–50) and Wilson (1997). The modern identifications for the seven oases in the Oasis List have not been established for certain, but the general consensus is that

[1] Examples published in Aston (1999: Nos 2754 and 2799), were identified there as Nile Valley products; however, subsequently they have been identified as products of the oases (Aston 2007: 441, n. 128).
[2] Personal observation.
[3] The inscriptions on the temple of Edfu are in the process of being re-examined and republished. For an overview of this work see the website of the Göttingen Academy of Sciences and Humanities Edfu Project at https://adw-goe.de/en/research/research-projects-within-the-academies-programme/the-edfu-project/projekt/.

they include the five major oases of Kharga, Dakhleh, Farafra, Bahariya and Siwa, as well as the Wadi Natrun and perhaps one of the smaller oases (TABLE 1.1).

Despite the fact that the modern identities of the individual oases are not certain, the Edfu Oasis List is nonetheless an important text for the study of the oases during the Ptolemaic Period. It demonstrates that during the Ptolemaic Period the Egyptians recognised seven distinct oases in the Western Desert, and that these were viewed as part of the Egyptian administration. It also shows that there was a conscious attempt by the king, and perhaps also the priesthood, to incorporate the oases into the Egyptian religious sphere by adapting the myth of Osiris to an oasis setting (Aufrère 2000: 125ff). With this in mind, it is interesting to note that a cult of Osiris may have existed in Dakhleh during the Roman Period and perhaps earlier (Kaper 1997: 44–45).

TABLE 1.1 Toponyms in the 'Oasis List' of Edfu and their proposed modern identifications.

Position	*Toponym(s)*	*Modern identification(s)*
1st oasis	*p-ḳꜣ* (?)	Kharga (Aufrère 2000: 125; Fakhry 1939b: 640–641; Osing 1985: 185; Winlock 1936: 58) Dakhleh (Kaper 1992: 118)
2nd oasis	None preserved. [*ḳnm.t* (Kenmet) is preserved in the description of 3rd oasis]	Dakhleh (Aufrère 2000: 125; Fakhry 1939b: 640–641; Osing 1985: 185; Winlock 1936: 58) Kharga (Kaper 1992: 118)
3rd oasis	*tꜣ-iḥw* (Land of the Cow)	Farafra (Aufrère 2000: 125; Fakhry 1939b: 640–641; Kaper 1992: 118; Osing 1985: 185; Sethe 1920: 50; Winlock 1936: 58)
4th oasis	*sẖ.t-imꜣ.t/ sẖ.t-iꜣm.t* (Field of the *Ima*-tree/ *Iam*-tree)	Ain el-Wadi (Sethe 1920: 50) Ain el-Dallah (Osing 1985: 184) El-Hayz (Fakhry 1939b: 640–641) El-Areg Group (Kuhlmann 1988: 88) Siwa (Aufrère 2000: 103; Dümichen 1877: 19–21, 34)
5th oasis	*wḥꜣ.t mḥt.t* (Northern Oasis) *ḏsḏs* (Djesdjes)	Bahariya (Aufrère 2000: 126; Fakhry 1939b: 640–641; Kaper 1992: 118; Osing 1985: 185; Sethe 1920: 50; Winlock 1936: 58)
6th oasis	*sẖ.t-ḥmꜣ.t* (Field of Salt) *šrp* (Sherep) *sẖt-imnty* (Western Field) *pr-tꜣ-in.t* (Residence of the Valley) *st-ir.t-ḥr* (Place of the Eye of Horus)	Wadi el-Natrun (Fakhry 1939b: 640–641; Kaper 1992: 118; Osing 1985: 185; Sethe 1920: 50; Winlock 1936: 58) El-Barnoudji (Aufrère 2000: 106ff)
7th oasis	*tꜣ[...]* (Ta…)	Siwa (Fakhry 1939b: 640–641; Kaper 1992: 118; Kuhlmann 2013: 144–146; Osing 1985: 185; Sethe 1920: 50; Winlock 1936: 58) Wadi el-Natrun (Aufrère 2000: 117ff)

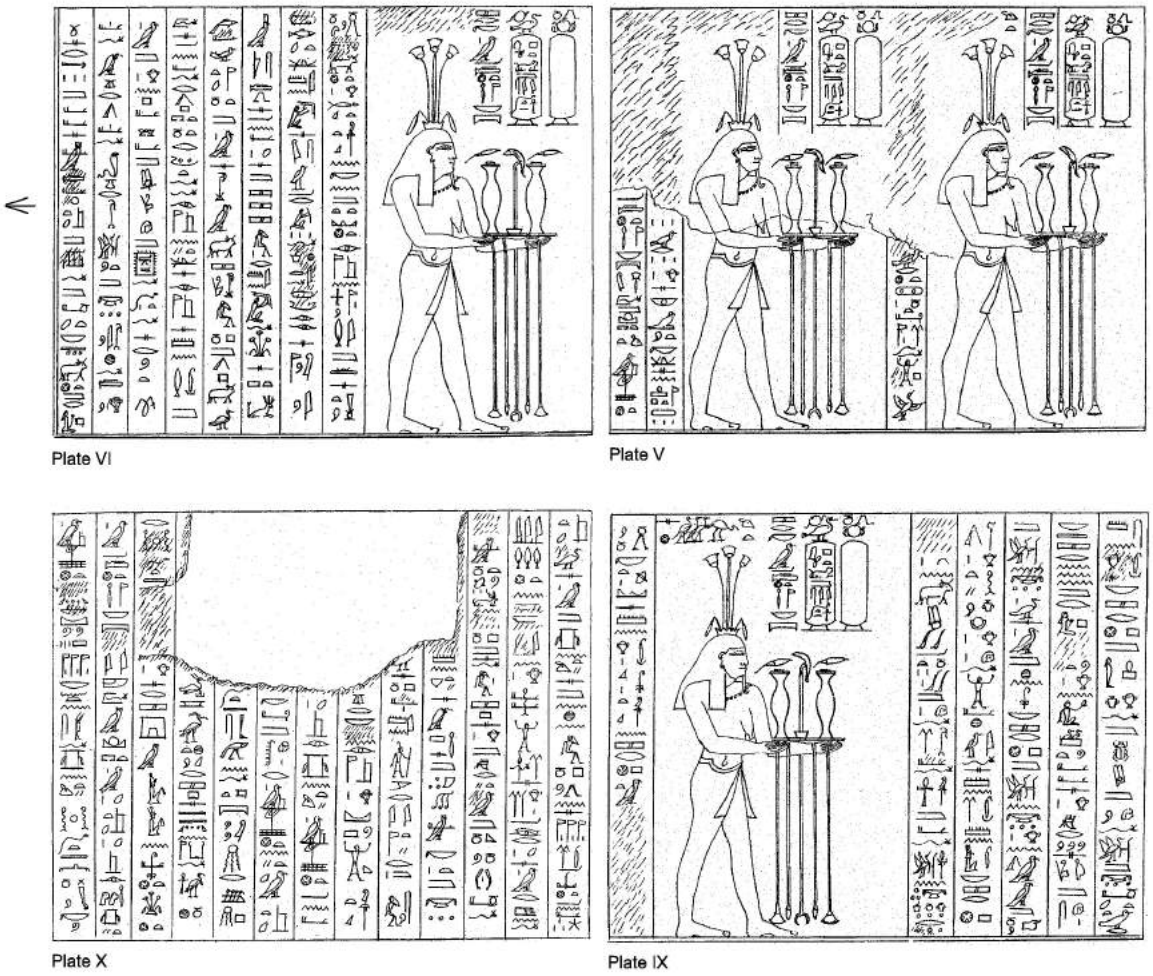
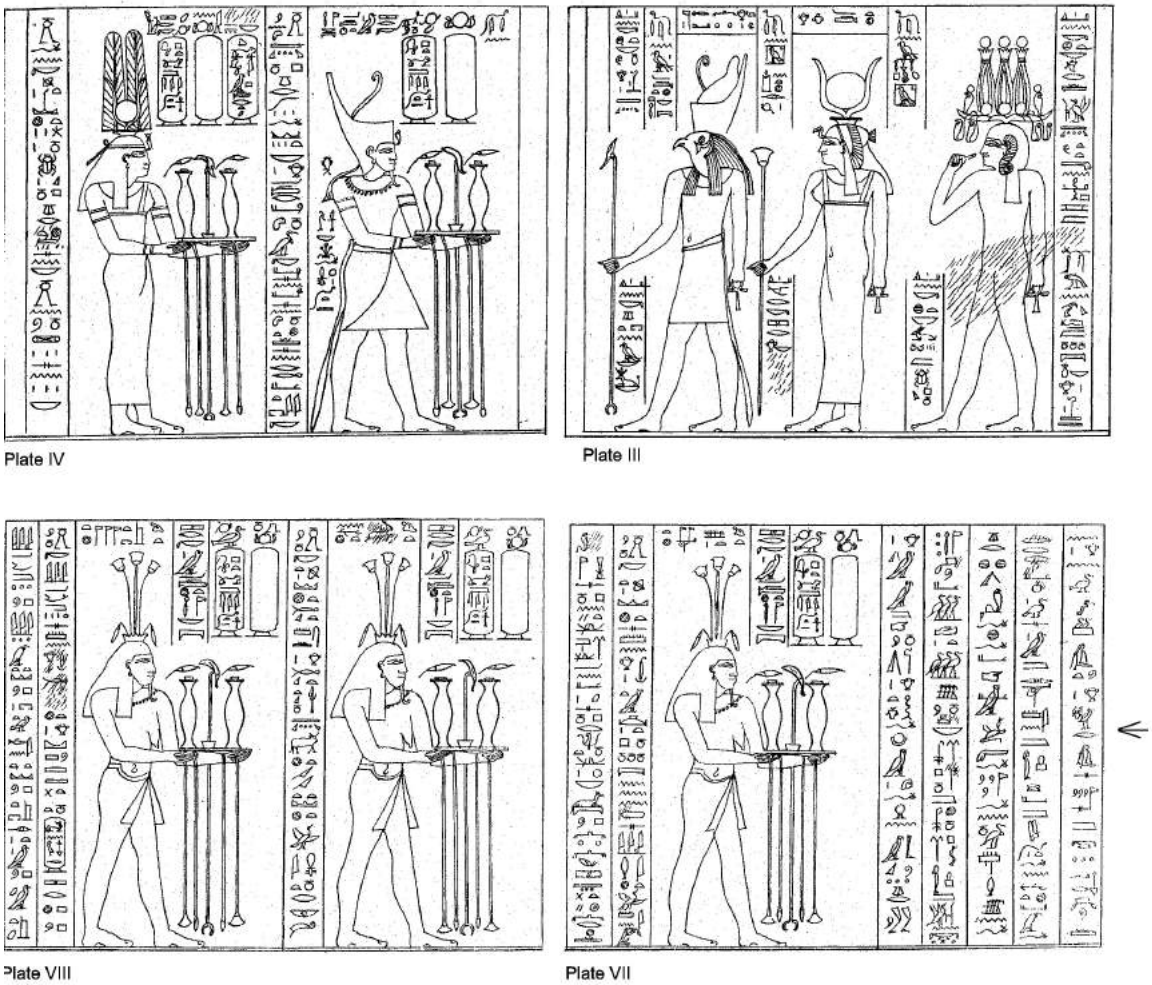


FIGURE 1.2 The 'Oasis List' of Edfu



(after Dümichen 1877: Pl. 3–10).

TABLE 1.2 References to oasis wine in Ptolemaic temple offering scenes.

Location	*Ruler*	*Toponym(s)*	*Reference(s)*
Edfu	Ptolemy IV	*ḏsḏs*	*Edfou* I, 362–363; Gaber 2009: 449
Edfu	Ptolemy VII	*ḏsḏs*	*Edfou* IV, 101; Poo 1995: 112–113, Type IV.2
Edfu	Ptolemy IX	*knm.t*	*Edfou* V, 150; Poo 1995: 94–95, Type I.14
Edfu	Ptolemy IX	*ḏsḏs*	*Edfou* V, 64; Poo 1995: 112–113, Type IV.5
Edfu	Ptolemy IX	*knm.t, ḏsḏs*	*Edfou* V, 51; Poo 1995: 112–113, Type IV.4
Edfu	Ptolemy XI	*knm.t, ḏsḏs*	*Edfou* VII, 267; Poo 1995: 94–95, Type I.15
Edfu	Ptolemy XII	*knm.t*	*Edfou* VIII, 54; Poo 1995: 114–115, Type IV.8
Edfu	Ptolemy XII	*knm.t, ḏsḏs*	*Edfou* VIII, 54; Poo 1995: 114–115, Type IV.9
Edfu	?	*knm.t*	*Edfou* I, 469; Poo 1995: 158
Edfu	?	*knm.t, ḏsḏs*	*Edfou* VI, 316; Poo 1995: 144
Dendera	?	*knm.t, ḏsḏs*	*Dendera* IV 46, 10; Gaber 2009: 281
Dendera	?	*tꜣ-timiḥw*	*Dendera* IX, 222,11; Aufrère 2000: 101
Dendera	?	*knm.t, ḏsḏs, ḥwt-tꜣ iḥw*	*Dendera* IV, 65; Poo 1995: 98–99, Type I.28
Kom Ombo	Ptolemy VI	*ḏsḏs*	De Morgan 1909: No.799 (L); Gaber 2009: 546
Kom Ombo	Ptolemy VI	*ḏsḏs*	De Morgan 1909: No.799 (R); Gaber 2009: 547
Kom Ombo	Ptolemy VI	*ḏsḏs*	De Morgan 1909: No.798; Gaber 2009: 558
Karnak	?	*knm.t, ḏsḏs*	*Wb*. V 487, 6; Giddy 1987: Table IV.14
Karnak	?	*knm.t, ḏsḏs*	*Wb*. V 487, 6; Giddy 1987: Table IV.13
Philae	Ptolemy XII	*knm.t, ḏsḏs*	*Philae* II, 28; Poo 1995: 94–95, Type I.16

Additional references to the oases are found elsewhere in the temple of Edfu, as well as in Ptolemaic inscriptions in the temples of Karnak, Esna, Dendera and Kom Ombo. These texts regularly identify the oases as important wine-producing regions (TABLE 1.2). Many of these references have been brought together and discussed by Poo (1995), although it should be noted that he identified Kenmet with Kharga alone, rather than Kharga and Dakhleh together, and thus Dakhleh was omitted from the discussion. In a hymn to Hathor from the temple of Dendera, the king brings wine-producing lands, such as Kenmet (*knm.t*) and Djesdjes (*ḏsḏs*), to the goddess (*Dendera* IV 46, 10; Gaber 2009: 281). Likewise, a series of inscriptions in the Central Hall at Kom Ombo, which date to the reign of Ptolemy VI (Gaber 2009: 37), also link the region of Djesdjes with wine. In the accompanying scenes, the king leads a procession of fecundity figures bearing offerings toward the gods (Gaber 2009: 207–208).

> He brings to you, Horus, chief of Djesdjes carrying his wine …
>
> De Morgan (1909: No. 799 left); Gaber (2009: 546).

Whilst the oases were known for their wine-production during the New Kingdom, the evidence for this comes mostly from wine-jar labels (Giddy 1987: 78; Long 2012: 107–108) and wall paintings in private tombs from the Theban necropolis (Giddy 1987: 68–76; Long 2012: 108–110), as well as a reference to the vineyards of the Southern Oasis and Northern Oasis in Papyrus Harris I (7, 10; cf. Erichsen 1933: 9; Giddy 1987: 89). It is also supported by finds of oasis wine amphorae from both the oases and the Nile Valley (Hope 2002c; Long 2012: Table 1). Despite the fact that the oases were regarded as important wine-producing regions during the New Kingdom, they do not appear in wine-

offering scenes in Egyptian temples until the Ptolemaic Period (Poo 1995: 165–166). Instead it is within the context of private tombs that we see depictions of oasis wine, along with other oases goods, being received by Egyptian temples in the presence of the tomb owner, who each held important administrative offices, which in one case included Vizier of Upper Egypt (Giddy 1987: 68–76; Long 2012: 108–110). During the Ptolemaic Period, such tomb scenes are not encountered, rather we see oasis wine depicted within the context of tribute-bearing scenes in Upper Egyptian temples where it is presented to the god. Importantly, it is the role of the king in this exchange that is highlighted, as the king presents oasis wine to the god, but also the god bestows the wine-producing lands on the king (Poo 1995: 139ff).

> I give you the oasis-dwellers as your serfs, carrying their wine.
>
> *Edfou* IV, 125; Poo (1995: 139).

> I give you Djesdjes as possession for your Majesty, and (the people of) Kenmet gathered together as your serfs.
>
> *Edfou* VII, 212; Poo (1995: 140).

> Welcome in peace, ruler of Djesdjes, great sovereign of Kenmet, I have accepted the wine, which you have brought to my Majesty.
>
> *Edfou* VI, 316; Poo (1995: 144).

I believe that this change is quite deliberate and reflects an attempt by the Ptolemies to take power away from local administrative officials in Upper Egypt, perhaps in response to ongoing trouble in the region (cf. Hölbl 2001: 154–156; Manning 2010: 17). In both cases, oasis wine is being received by the temple, but whereas in the New Kingdom it is the official who is shown to be in control of this process, in the Ptolemaic Period it is clearly the king who provisions the temple.

Other regions regularly associated with the oases in Ptolemaic inscriptions are the lands of the Tjehenu (*ṯḥnw*) and Tjemehu (*ṯmḥw*). From the Old Kingdom onward these occur in Egyptian texts as names for groups living to the west of the Nile Valley, although it is unclear whether they refer to the inhabitants of the oases or other groups living in the desert regions (Hope 2007). By the Ptolemaic Period, these terms still appear to have represented regions, or groups of people, located somewhere to the west of the Nile Valley, although their specific location is unknown. The inhabitants of Tjehenu are listed along with the inhabitants of the 'Field of the Ima-tree/ Iam-tree (*sḫ.t-ỉmꜣ.t/ sḫ.t-ỉꜣm.t*)' in the 'Nine Bows' List at Edfu (*Edfou* VI, 197,9–198,3; Aufrère 2000: 120; Dümichen 1877: Pl. 11). Elsewhere, the king brings the Tjehenu along with the Nine Bows to Horus (*Edfou* VI, 107,19; Wilson 1997: 1171). Likewise, Tjemeh is also mentioned in association with the oases. In the mythological text associated with the seventh oasis in the Edfu Oasis List, the gods of *ṯmḥ.t* and the gods of *sḫ.t-ỉmꜣ.t/ sḫ.t-ỉꜣm.t* come exulting (*Edfou* VI, 24,8; Aufrère 2000: 117; Wilson 1997: 1164). Furthermore, an inscription in the temple of Dendera identifies the land of Tjemehu (*tꜣ-tỉmiḥw*) as a wine-producing region (*Dendera* IX, 222,11; Aufrère 2000: 101). Both the Tjemehu and Tjehenu are identified amongst the foreigners neighbouring Egypt in the temple of Edfu (Wilson 1997: 1164, 1171).

Various Egyptian gods are associated with the oases in Ptolemaic inscriptions; for example, the Edfu Oasis List explicitly identifies Amun-nakht and Osiris as gods of the first and third oases respectively (cf. above). There also appears to have been a special connection between the oases and the god Seth, which originated well before the Ptolemaic Period (te Velde 1967: 115–116; Kaper 1997: 55ff; Smith

2010: 412–413). 'Seth of the Oasis' (*stẖ-n-wḥꜣt*) appears on two occasions at Edfu as one of the nine deceased gods, the 'Children of Re', along with three other forms of Seth (*Edfou* I, 173,1–174,8; III 301,8–16; Gaber 2009: 132–133, Table 3.4; Wilson 1997: 249). Elsewhere at Edfu, the king 'drives away the allies of Seth from Oasis (*wḥꜣ.t*)' (*Edfou* VII, 199,18–200,1; Wilson 1997: 249). In the Hieratic text known as Papyrus Salt (*P. Salt* 825 5,2; B.M. 10051), the 'Land of Djesdjes' (*tꜣ n ḏsḏs*) and the 'Land of Kenmet' (*tꜣ n knm.t*) are identified as locations where the blood of Seth has fallen (Derchain 1965: 138; te Velde 1967: 115; Klotz 2006: 90). Finally, the wine of the oasis is described as a gift of Seth:

> The king has come to you, Horus of Edfu…He has brought to you Seth with his wine, from among the best of the vineyards of Kenmet (*knm.t*), *Ꜥpꜣ*-jar in his hand, containing the Green Horus Eye (wine), in order to please your heart through it.
>
> *Edfou* I, 469, 2; Poo (1995: 158); te Velde (1967: 115, n. 4).

There is also some evidence for a connection between the individual oases and specific administrative districts in the Nile Valley. For example, a Demotic inscription from Gebel Sheikh el-Haridi, dating to the late Ptolemaic Period (61 BCE), names Psais son of Palilis as a priest and a *strategos* of both the district of Akhmim (Panopolis) and the nome of Hibis (*ḥb*) and the Oasis (*wḥe*) (Spiegelberg 1913: 68, 71; Van't Dack 1988: 347; Wagner 1987: 142; cf. most recently Cruz-Uribe and Farid 2000). Further evidence for an administrative connection between Kharga and the Panopolite and Thinite nomes is found in a fragment of a Greek papyrus from Ptolemais in Upper Egypt (SB 4: 7403), dating to the reign of Ptolemy II or III, which comprises a description of the cities of the Thebaid, from south to north, and lists Hibis (Ἶβιν) after Thinis (Wagner 1987: 143; Wilcken 1920: 275–278). This administrative connection between Upper Egypt and the Southern Oasis is also supported by an unprovenanced funerary stela (Louvre C 112) dating to just prior to the Ptolemaic Period (Dynasties XXVIII–XXX), which includes amongst the administrative titles of the owner Hor, the titles 'royal director of Upper Egypt' and 'royal account scribe of the Southern Oasis and Hibis' (Darnell *et al.* 2013: 5). This connection is further illustrated by a recently published statue (ex-Hannover, Kestner Museum Inv. S. 0366) of similar date thought to be from Thebes, which likewise identifies the owner as a 'royal accounting scribe of the Southern Oasis, Hibis', as well as a 'priest of Seth of the Southern Oasis' and scribe of Amun in Karnak (Klotz 2013b: 173–174).

Whilst not extensive, the inscriptional evidence from the Nile Valley provides some useful information regarding the role of the oases during the Ptolemaic Period. Importantly, the evidence presented above demonstrates that the oases were incorporated directly into the Egyptian administration. Furthermore, the fact that the oases are regularly associated with wine in Ptolemaic temple inscriptions indicates that agricultural exploitation, including wine-production, was one reason for Ptolemaic interest in the region. Another reason put forward in the published literature is access to trade (Manning 2010: 106; 2011a: 313), which is logical given Ptolemaic interest in controlling trade through Cyrenaica (Hölbl 2001: 18; Huß 2001: 103–104), Lower Nubia (Burstein 2008), and the Red Sea coast (Hölbl 2001: 57, 204; Sidebotham 2011: 32, 37), but which is not demonstrated by the Nile Valley evidence alone. We should also consider the role that the Western Desert might have played within the defensive 'buffer zone' that is recorded by Polybius (V.34.2–9; cf. Hölbl 2001: 28, 66–67); however, once again this is not possible using the Nile Valley evidence alone. In the following chapters I will evaluate the evidence from the oases themselves in order to demonstrate that it was in fact a combination of agricultural exploitation, access to trade and military security that motivated the Ptolemies to have an active interest in the Western Oases.

CHAPTER 2

MUT AL-KHARAB

The temple enclosure is the largest in the region…It offers the potential to document the history of the oasis during many periods that are relatively obscure in the oasis, especially from the New Kingdom to the Ptolemaic Period.

Hope (2001b: 47).

2.1 INTRODUCTION

DESCRIPTION OF THE SITE

Mut al-Kharab is located in south-central Dakhleh Oasis on the south-western edge of the modern town of Mut (FIGURE 2.1). The site is situated upon a series of mounds that are surrounded by modern houses and fields, whilst the main road heading south from Mut passes to the east of the site and has caused the destruction of the outer south-east corner of the temenos. A number of modern tracks currently criss-cross the site where local farmers have created shortcuts to their fields and the site has been regularly used as a rubbish dump by the inhabitants of the nearby houses (Hope 2001a: 34; PLATES A.1 and A.2).

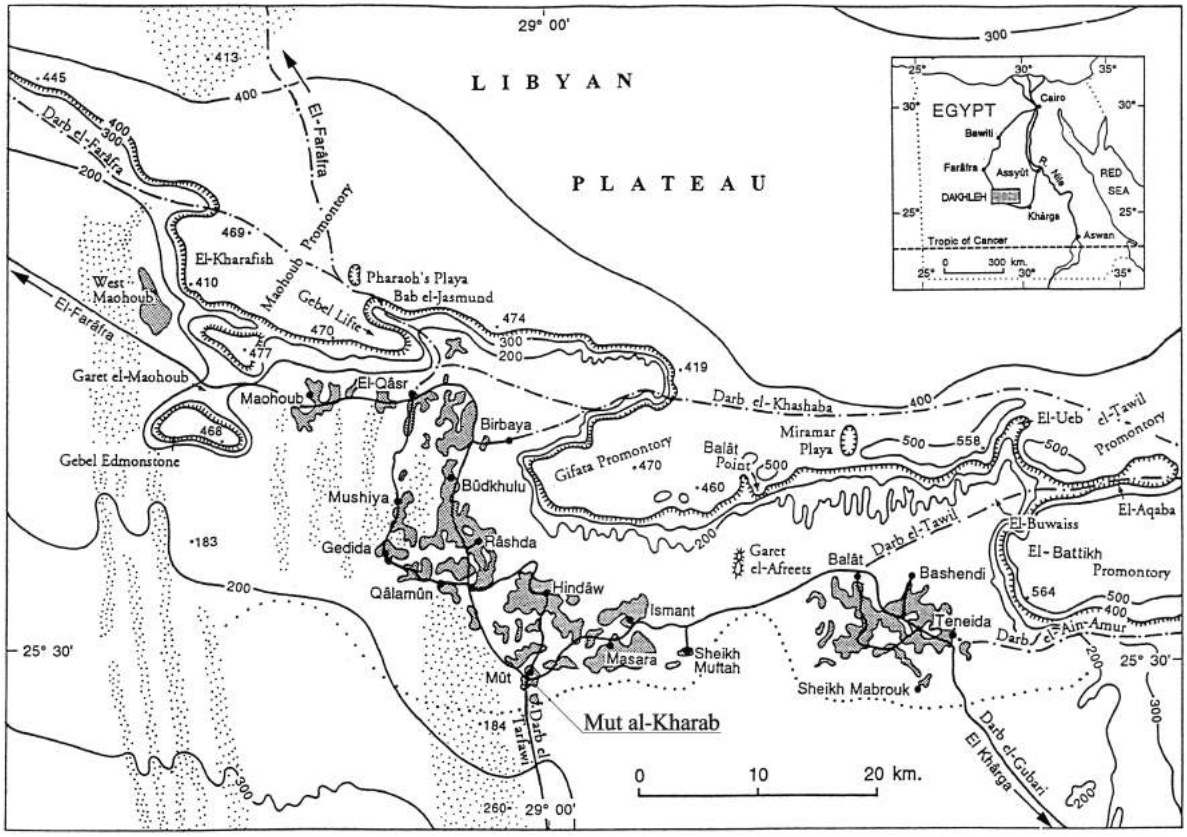


FIGURE 2.1 Map of Dakhleh Oasis showing the location of Mut al-Kharab. Modern settlements, cultivation (shaded) and roads are indicated (after Kleindienst et al. 1999: Fig. 1.1).

The most prominent feature of the site today is a large rectangular mud-brick temenos wall measuring approximately 180 m by 217 m and oriented north-south (FIGURE 2.2). It was built in sections and probably in several stages and it is up to eight meters thick in the north-west corner (Hope 2004a: 30). The wall is best-preserved on the west and also on the south where it is built across a natural spring mound and it stands to a height of around eight meters at the south-east corner (PLATES A.3 and A.4). A second spring is located in the south-west corner and has been partly cut-through in order to lay the foundations for the wall (Hope 2001: 48). Excavation has revealed that the temenos wall was already built by Dynasty XXVII, although a precise date for its construction has not yet been determined (Hope 2004a: 30–31).

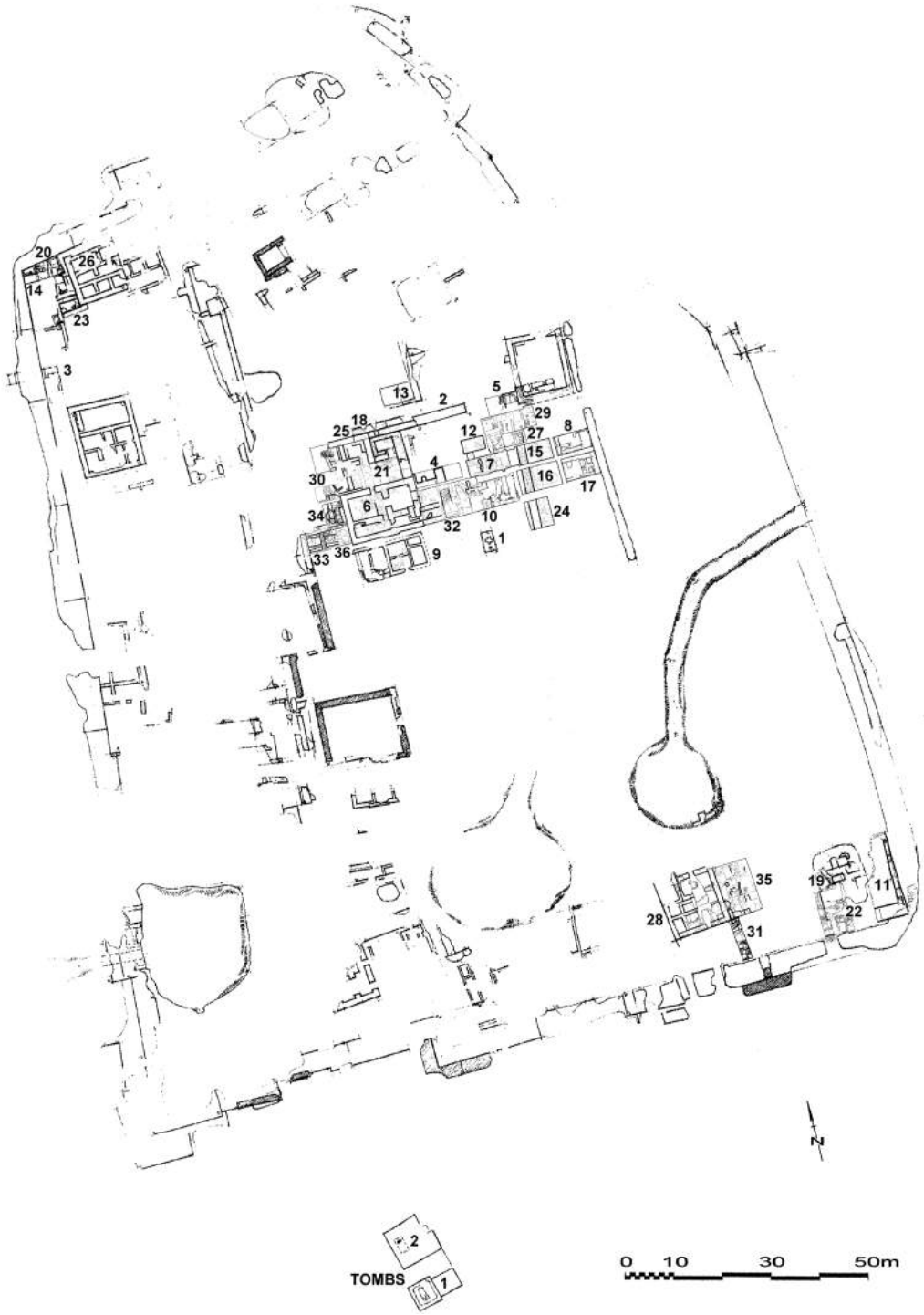


FIGURE 2.2 Plan of Mut al-Kharab showing the location of the excavated trenches (drawing compiled by B. Parr based upon excavation records).

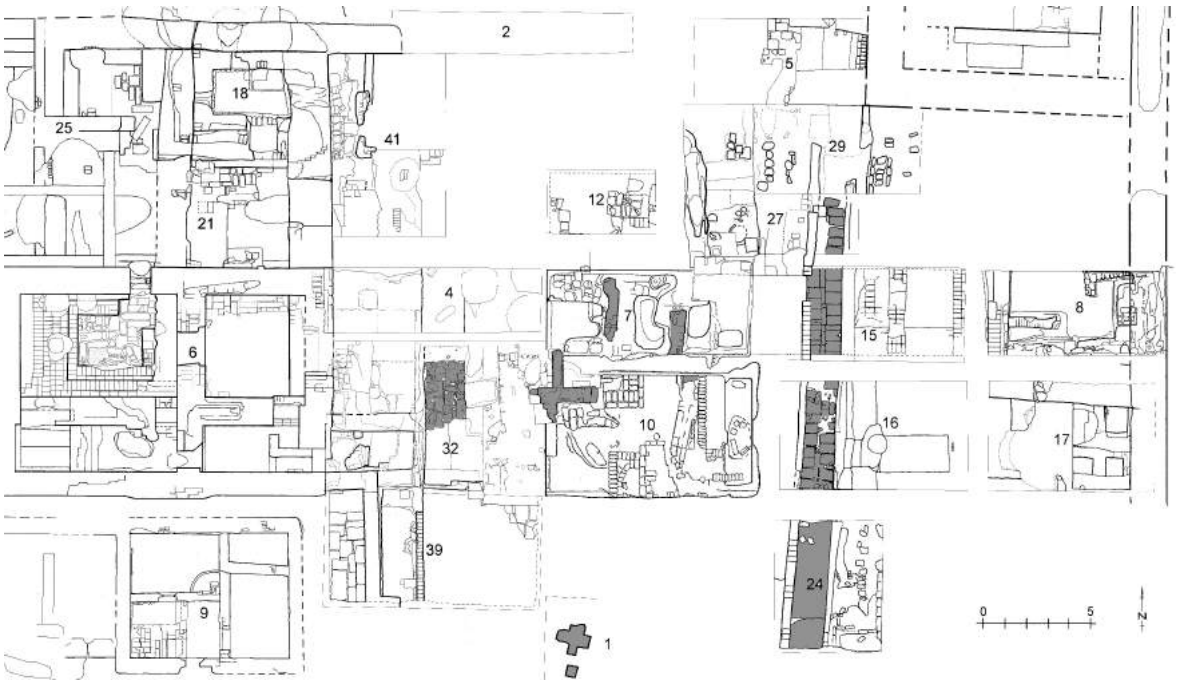


FIGURE 2.3 Plan of the temple area. Shading indicates surviving stone wall foundations.

A large depression in the central part of the site marks the location of the temple (FIGURE 2.2; PLATE A.1). The temple itself is poorly preserved but is defined by the foundations of two parallel north-south stone walls situated approximately 16 m apart, as well as areas of brick and stone paving (Hope *et al.* 2009: 65; FIGURE 2.3). It is likely that these remains belong to the latest phase of the temple, which apparently dates to the Roman Period (Hope *et al.* 2009: 65); however, ongoing excavations have revealed many isolated stone blocks, comprising architectural elements, inscribed stelae and sections of wall relief, which range in date from the Middle Kingdom to the Roman Period (Hope 2003a: 58; Hope *et al.* 2008: 59–60; 2009: 64–65).

Mud-brick structures in various states of preservation are scattered across the site, although only a few of these have been investigated (PLATES A.1 and A.2). A cemetery is located at the southern end of the site, beyond the southern temenos wall, whilst geophysical survey has also revealed what may be industrial activity in that area (Hope 2001b: 59).

PREVIOUS AND CURRENT RESEARCH

Several early travellers visited Mut al-Kharab and noted the archaeological remains.[1] For instance, Gerhard Rohlfs (1875: 258, 297) described finding the remains of large stone blocks and pieces of stone columns within the enclosure. Captain Henry Lyons visited Mut in 1894 and bought two large hieratic stelae from the local villagers that were said to be from Mut al-Kharab (Hope 2001: 49; Mills 1999a: 175–176), which were sent to the Ashmolean Museum in Oxford and were subsequently published (Gardiner 1933; Janssen 1968). The stelae date to Dynasties XXII and XXV respectively and provide evidence for a cult and temple of Seth at the site (Hope 2001b: 49; Kaper 2001: 71–72). Herbert Winlock visited Mut al-Kharab briefly in 1908 and reported finding a sandstone fragment bearing a monumental hieroglyphic inscription (Winlock 1936: 40). From these accounts it is clear that the site had already been long-ruined, although there was enough evidence to indicate that a temple once stood there.

[1] For a summary of archaeological exploration in Dakhleh during the 19th and early 20th centuries, see Kaper (1997: 3–6), and also the recent study by Boozer (2013).

The site was surveyed in 1978 by members of the DOP. A collection of the surface pottery was made and this was used by Colin Hope to form the basis of the DOP fabric classification system (Hope 1979a: 190; Mills 1979a: 175). The first formal excavations at the site were undertaken by the DOP in 1980, when three test trenches were excavated. Trenches 1 and 2 were located in the central area where the temple was thought to have once stood, whilst Trench 3 was located in the north-west corner of the temenos against the inner face of the western wall (Mills 1981a: 180–181, 187–188; FIGURE 2.2). These excavations demonstrated that a temple did in fact once stand here, although the date of its construction remained unknown (Mills 1981a: 188).

Apart from some limited testing undertaken by the Dakhleh Inspectorate during the mid 1990s in the south-eastern corner of the temenos (Hope 2001b: 50), the site was not explored again until 2001 when an Australian team from Monash University commenced work for the DOP under the direction of Colin Hope (Hope 2001a; 2001b). Ongoing work by this team has revealed a long-history of occupation at the site going back to at least Dynasty IV (Hope and Pettman 2012). There is also evidence in the form of pottery, inscribed stone blocks and other material, for activity during the Middle Kingdom (Hope *et al.* 2008: 59–60), New Kingdom (Hope *et al.* 2009: 64–65; Long 2008; 2012) and Third Intermediate Period (Hubschmann 2009; 2010; 2012; Hope *et al.* 2009: 64), whilst extensive structural remains, ostraka and large quantities of pottery demonstrate that substantial activity occurred during the Late Period (Hope 2004a: 30–31; 2004b: 105; Kaper 2001; 2012b: 167–169), Ptolemaic Period (Gill 2012b; Hope 2005a: 44–45; Hope *et al.* 2006: 37–40; Vittmann 2012) and Roman Period (Hope *et al.* 2009: 63–66).

Some of the Ptolemaic pottery from the site was recorded by members of the Monash University team in 2005 and 2006 and a selection was published in the annual reports for those years (Hope 2005a: 44–45, Figs 15–16; Hope *et al.* 2006: 37–40, Figs 14–16). Additional Ptolemaic pottery was recorded by the author during field seasons in 2008 and 2009. Studies based on this material have recently been published (Gill 2012a; 2012b), whilst others are forthcoming (Gill *Forthcoming a; c*). Some of the Demotic ostraka of Ptolemaic date from the site have been discussed in a recent study by Günter Vittmann (2012).

2.2 THE PTOLEMAIC POTTERY DEPOSITS

Pottery of Ptolemaic date has been found in most of the trenches across the site, particularly those in the south-east corner of the temenos and in the area of the temple (TABLE 2.1). Much of the Ptolemaic material was found in surface contexts or in disturbed deposits mixed with pottery from other periods; however, there are several deposits that are entirely Ptolemaic in date. Most of these represent deposits of fill or accumulated rubbish, yet they are each sealed beneath platforms or packing levels and thus have good horizontal clarity. Furthermore, each deposit appears to be ceramically homogenous, which indicates that they were probably the result of a single depositional phase.

Following a preliminary examination of the ceramic material, a number of Ptolemaic contexts were selected for detailed recording (TABLE 2.2). The pottery from within these contexts forms the basis of the Ptolemaic corpus for Dakhleh, and is supplemented by Ptolemaic pottery from other sites in the oasis. I have also chosen to record a single context from Trench 20 as this appears to be of Late Period/early Ptolemaic date, and will hopefully serve to illustrate the transition between these two periods. In addition to the pottery from key contexts outlined in TABLE 2.2, I have also included a small selection of vessels from other trenches and contexts at the site. These have been chosen because they demonstrate variations in decoration or form, or because they represent more complete examples of forms that are found within the key assemblages.

TABLE 2.1 List of trenches that have yielded Ptolemaic pottery.

Trench	Summary of the Ptolemaic material
1	Many Ptolemaic forms found in Context 5 along with Roman pottery.
4	Possible Ptolemaic sherds found in mixed contexts.
5	A few Ptolemaic sherds found in mixed contexts, including a black ware sherd.
6	A few possible Ptolemaic sherds in mixed contexts.
8	Some Ptolemaic sherds in mixed contexts.
11	Some contexts appear to be transitional Late Period to Early Ptolemaic.
14	Some Ptolemaic sherds in mixed contexts, Contexts 8 and 9 appear to be Late Period, some Ptolemaic in Contexts 15 and 101.
15	Ptolemaic sherds in mixed contexts, Contexts 18 and 28 appear to be Ptolemaic.
17	Some Ptolemaic sherds in mixed contexts.
18	Deposit of Ptolemaic ostraka and other Ptolemaic sherds.
19	A few Ptolemaic sherds in mixed contexts.
20	Ptolemaic sherds in mixed contexts. Context 35 appears to be transitional Late Period to early Ptolemaic.
22	Some Ptolemaic sherds in mixed contexts, many good Ptolemaic contexts.
23	Many Ptolemaic sherds in mixed contexts, overall appears to be Late Period.
24	Very few Ptolemaic sherds in mixed contexts.
26	A few Ptolemaic sherds in mixed contexts.
28	Many good Ptolemaic contexts.
29	Some Ptolemaic sherds in mixed contexts.
30	A few possible Ptolemaic sherds in mixed contexts.
31	Ptolemaic sherds throughout, Contexts 19 and 28 are Ptolemaic.
34	Some registered Ptolemaic vessels.
35	Some registered Ptolemaic vessels, possibly some Ptolemaic contexts.
37	Some isolated Ptolemaic sherds in mixed contexts.

TABLE 2.2 Key Ptolemaic Pottery Deposits from Mut al-Kharab

Trench	Context(s)	Date
22	(26) (28) (29) (30) (33) (34) (39) (40) (49) (50) (52) (53) (54) (58)	3rd–2nd century
28	(21) (24) (25) (34) (35) (36) (37) (38) (41)	Late 4th–Early 3rd century
31	(19) (28)	3rd–2nd century
18	(7) (15) (17) (20) (22) (29)	Late Ptolemaic (Ostraka)
15	(18) (28)	Early 3rd century?
20	(35)	Mid to Late 4th century?

In the following section I present a description of each of the key Ptolemaic deposits. I provide an overview of the excavations in each trench, including a description of the major architectural features and the relationship between these and the Ptolemaic deposits. Where possible some preliminary

observations are made concerning constructional phases and formation processes. A description of each individual context is presented separately in APPENDIX 1, whilst the corpus of Ptolemaic pottery from Mut al-Kharab is presented in APPENDIX 2. Below I have provided only a brief summary of the pottery from each deposit, as I will discuss this material in much greater detail in CHAPTER 3.

TRENCH 22

Trench 22 is located in the south-east corner of the temenos and was excavated during the 2005 and 2006 field seasons (Hope 2005a: 44–46; Hope *et al.* 2006: 37–38; FIGURE 2.4). The original trench measured 10.0 x 6.0 m but was extended in 2006 to the north and west by an additional 0.8 x 4.5 m. The trench is situated in the area between the large mud-brick platform and the south wall of the temenos, and incorporates the south-west corner of the platform (FIGURE 2.5; PLATE A.5). The function of this platform is unclear, although it might represent the foundation platform for a tower. Such platforms are encountered regularly throughout Egypt, some within temple enclosures, and are thought to have supported domestic, administrative or storage structures (cf. Kemp 2006: 355–356).

Between the platform (Context 12) and the south temenos wall (Context 23) are two east-west oriented mud-brick walls (Contexts 21 and 37) and a third oriented north-south (Context 32), which is bonded to the Context 37 wall. These appear to belong to a single structure, the corner of which has been cut through for the construction of the Context 12 platform (FIGURES 2.5 and 2.6; PLATES A.6 and A.7). The area between the southernmost wall (Context 37) and the temenos wall is paved with mud-bricks (Context 25), while the surface between the two east-west walls (Contexts 21 and 37) is compacted and may represent an activity surface (Context 28). Immediately below both the paving and the compacted surface are a series of deposits, which comprise large amounts of pottery. These deposits extend beneath the Context 37 wall and appear to fill the area between the temenos wall and the Context 21 wall.

Below these deposits a large east-west oriented mud-brick wall was revealed (Context 62), which is abutted on the south by one or possibly two partially exposed walls (Contexts 80 and ?62). Like the other walls, the north face of the Context 62 wall had been cut through for the foundation of the large platform (FIGURE 2.6 East Section). While the base of the temenos wall was not reached, the base of the platform (Context 12) and the Context 62 wall were found to be resting on compact red clay, at a depth of approximately 4 m below the preserved surface of the platform.

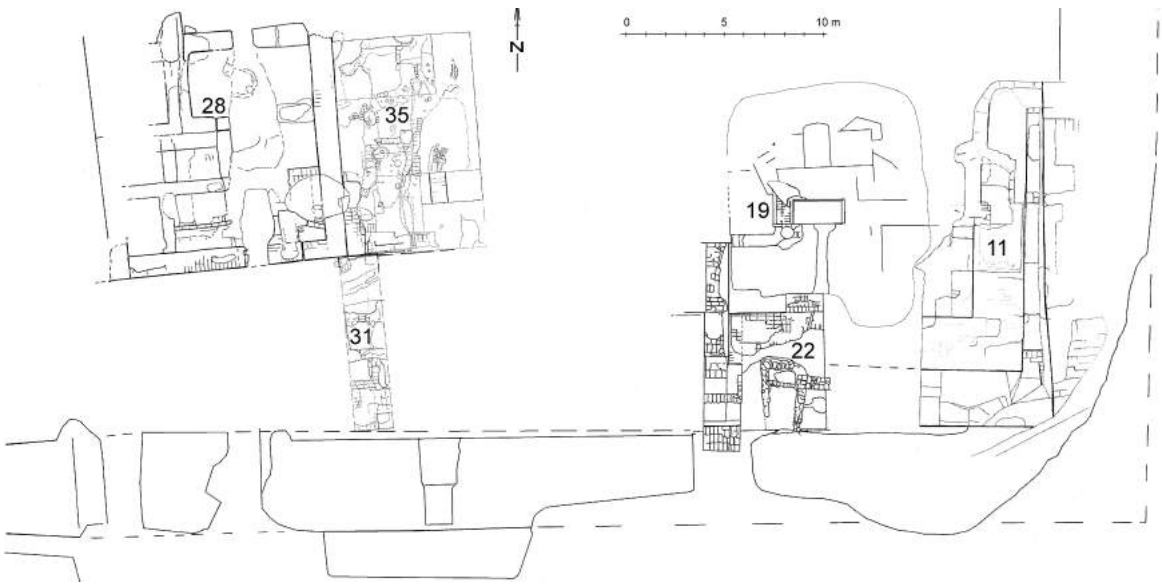


FIGURE 2.4 Plan showing trenches in the south-east corner of the temenos.

Two additional east-west oriented mud-brick walls (Contexts 67 and 70) were revealed in the northern trench extension and were also found to be truncated by the foundation pit for the large platform (FIGURES 2.5 and 2.6). The spaces between these walls are brick-paved (Contexts 78 and 79), which might be contemporary with the paving found in the southern part of the trench (Context 25; FIGURE 2.6 East Section; PLATE A.8). Excavation did not continue in this northern area and the nature of the underlying deposits remains unknown. The walls (Contexts 67 and 70) together with the Context 21 wall probably represent a single structure. It is of interest to note that several walls discovered in Trench 11, located on the eastern side of the platform (FIGURE 2.5), were similarly cut through by the foundation pit for the platform (cf. Hope 2002a: 95–97); however, as no distinct Ptolemaic deposits were recognised, Trench 11 will not be discussed further.

The contexts underlying the Context 25 platform and the Context 28 surface contained abundant amounts of pottery of Ptolemaic date (Contexts 26, 28, 29, 30, 33, 34, 39, 40, 49, 50, 52, 53 and 54; PLATES A.9 and A.10). These contexts all appear to be part of a single deposit, which was created as deliberate packing for the overlying platform (Context 25) and wall (Context 37). Whilst an exact date for the construction of this packing is not known, the pottery contained within the deposit dates to the 3rd or 2nd century, which indicates that the fill was deposited at some stage after this. This suggests that the overlying building, represented by Contexts 25 and 37, was constructed during the Late Ptolemaic or Early Roman Period. The fact that the same packing deposit lies against and over the Context 62 and Context 80 walls, indicates that this structure represented by these walls was already in place prior to the 3rd century. In addition to pottery, other finds from the packing deposit include fragments of ceramic animal figurines (Reg. 22/057 and 22/058), a fragment from a small limestone statue (Reg. 22/042), which depicts the head of a male child with a side-lock of hair (PLATE C.1), and a faience scarab (Reg. 22/132; PLATE C.2).

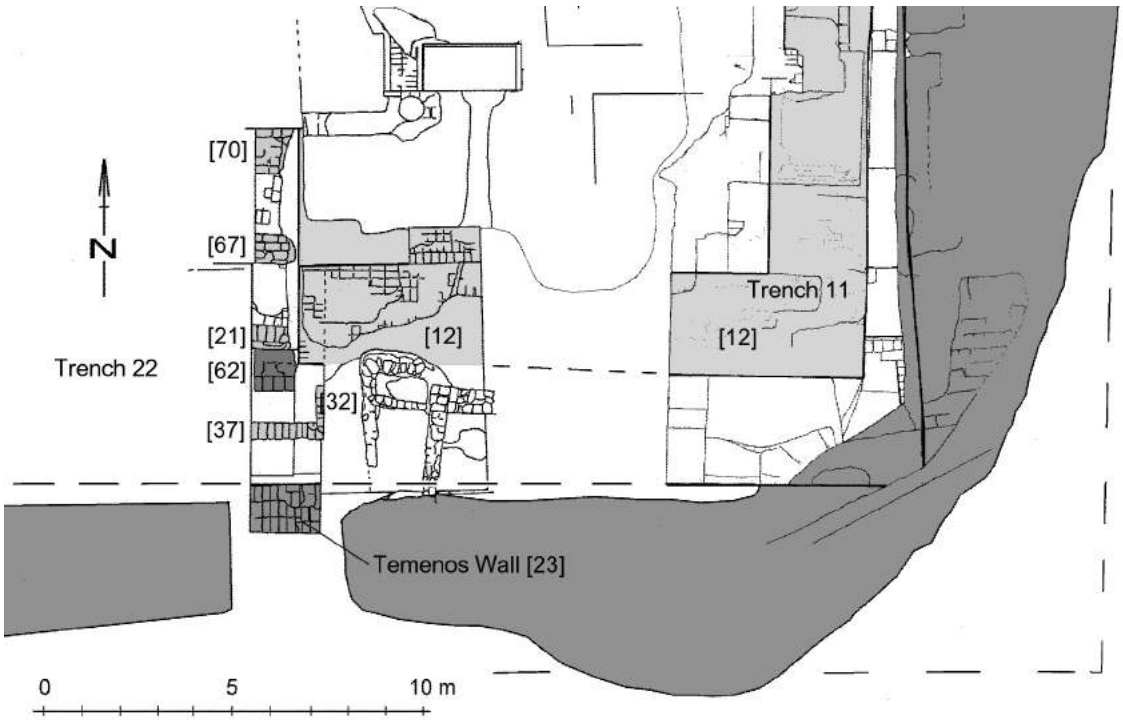


FIGURE 2.5 Plan of Trench 22 showing the platform and the truncated walls.

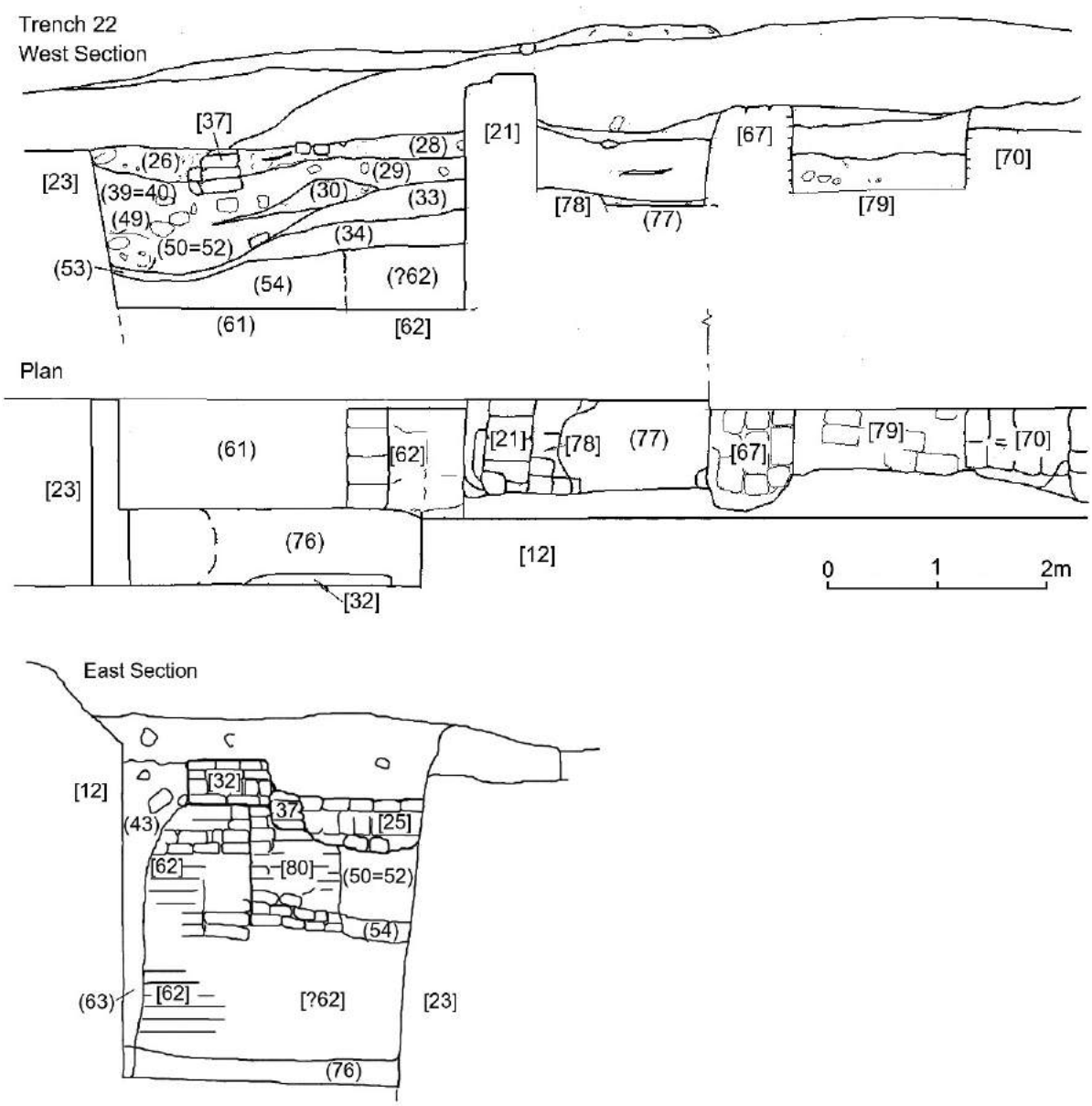


FIGURE 2.6 Trench 22 plan and sections.

Trench 22 – Pottery (APPENDIX 2, Numbers **1**–**409**)

The pottery includes some quite elaborately decorated forms, such as large jars with painted geometric and floral designs (**162**, **220**, **313**–**314**; Forms 64–65), carinated bowls with painted and modelled decoration (**8**, **55**, **57**, **59**–**60**, **195**, **201**; Forms 12, 36, 40–41) a painted *kantharos* (**149**; Form 42), and pieces from two Bes-vessels with painted and modelled features (**16**, **167**; Form 79). In addition, there is a large number of tableware vessels, such as shallow plates with modelled rims (**24**–**25**, **192**, **367**–**368**, also **761**; Forms 4–5), small bowls with flared rims (**229**–**232**, **317**, **350**, **369**–**370**; Forms 15–16), or incurved rims (**71**, **87**, **101**, **176**, **235**–**245**, **373**; Forms 9 and 11), as well as deeper bowls with modelled rims (**31**, **53**, **54**, **246**–**249**, **326**, **381**–**382**; Forms 24–25), and an *askos* (**295**; Form 89a). A sherd from an imported bowl of Greek origin also comes from here (**51**).

The rest of the assemblage is made up of more utilitarian vessels, such as globular cooking-pots with horizontal loop handles and ledged-rims (**191**, **209**, **290**, **308**, **408**; Forms 47–49), carinated cooking-pots with ledged-rims (**148**, **329**), necked cooking-pots with modelled rims (**140**, **285**, **339**–**340**; Form

67), spouted vessels (**222**–**223**, **289**; Forms 81–84), deep bowls in various sizes with modelled rims (**121**, **154**, **202**, **250**–**251**, **388**; Forms 29–32), short-necked jars with modelled rims (**20**, **67**, **138**, **214**; Form 61), pot-stands (**22**, **155**–**156**, **203**–**205**, **263**, **409**; Forms 100–101), kegs with modelled rims (**136**, **164**–**165**, **291**–**294**; Forms 94–98), a range of miniature vessels (**37**, **73**, **127**, **150**; Forms 53–54, 72), handled-pitchers (**211**, **266**; Form 69), and necked-jars with modelled rims in a range of forms (**93**, **270**–**280**, **282**, **309**, **311**–**312**; Forms 63–65). There is also part of a possible brazier (**144**). Based on parallels with Ptolemaic pottery from the Nile Valley, this assemblage appears to date to the 3rd or 2nd century (cf. CHAPTER 3).

TRENCH 28

This trench is located in the south-east corner of the site to the west of Trench 22 (Hope *et al.* 2008: 55; 2009: 59–61; FIGURE 2.4). It incorporates the heavily-eroded remains of several mud-brick walls in an area 12.0 x 13.0 m, which were later found to belong to a single mud-brick complex of several rooms (Building 1). A number of intrusive pits (e.g. Context 33) have disturbed the original occupation levels and truncated many of the walls; however, some of the lower deposits remain undisturbed. Two spaces within Building 1 were tested further (FIGURE 2.9 Rooms 2 and 3). A Ptolemaic copper-alloy coin (Reg. 28/047) was discovered near the surface (Context 27). It depicts the head of a queen on the obverse, whilst the reverse comprises an eagle with outstretched wings and the partially preserved legend '…ΛΕΟ…ΣΙΛ'. It is possible that this is an issue of Kleopatra VII (for similar types, see Poole 1883: 122).

At least two (and possibly three) separate phases of construction can be discerned here (FIGURE 2.9). The foundations for the walls of the upper structure (Building 1) are all built into and on top of a thick deposit of compacted rubble packing (Contexts 21, 24, 34, 37), which comprises clay, fragments of mud-brick and potsherds. A sherd with a stamped seal impression applied pre-firing (Reg. 28/032) was found in the packing layer (Context 21) and depicts a lizard above three signs with undulating lines (FIGURE 2.7). The packing was found in both rooms to overlie a deposit of crushed but mostly complete pottery vessels (Contexts 25 and 41; PLATE A.11). An iron blade from a mattock (Reg. 28/054) was also discovered in Context 25 (FIGURE 2.8).

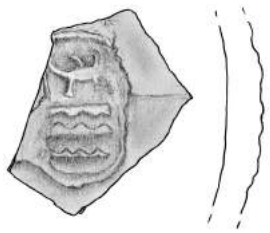


FIGURE 2.7 Reg. 28/032: Potsherd bearing a stamped impression, Trench 28 Context 21 (scale 1:2, drawing B. Parr).

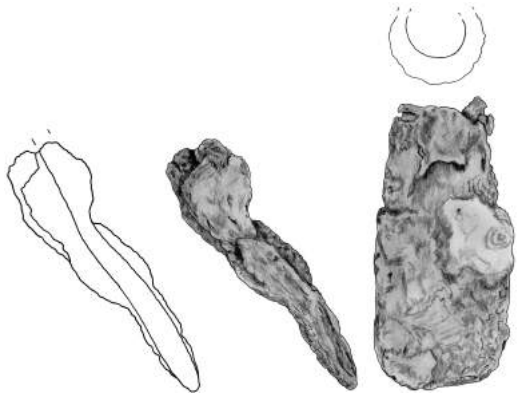


FIGURE 2.8 Reg. 28/054: Corroded iron blade from a mattock, Trench 28 Context 25 (scale 1:5, drawing B. Parr).

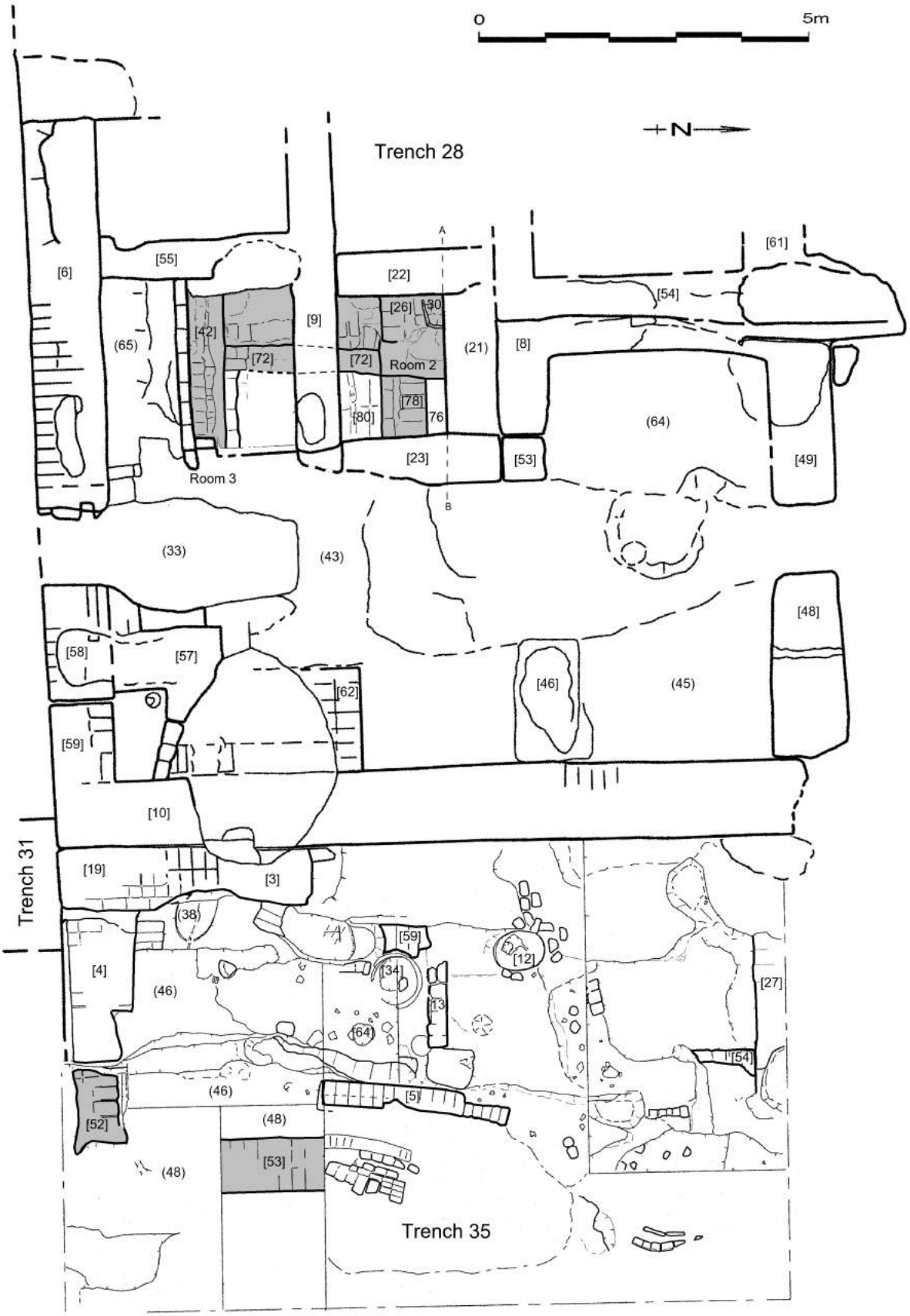


FIGURE 2.9 Plan of Trenches 28 and 35. Shading indicates the walls of an earlier structure beneath Building 1.

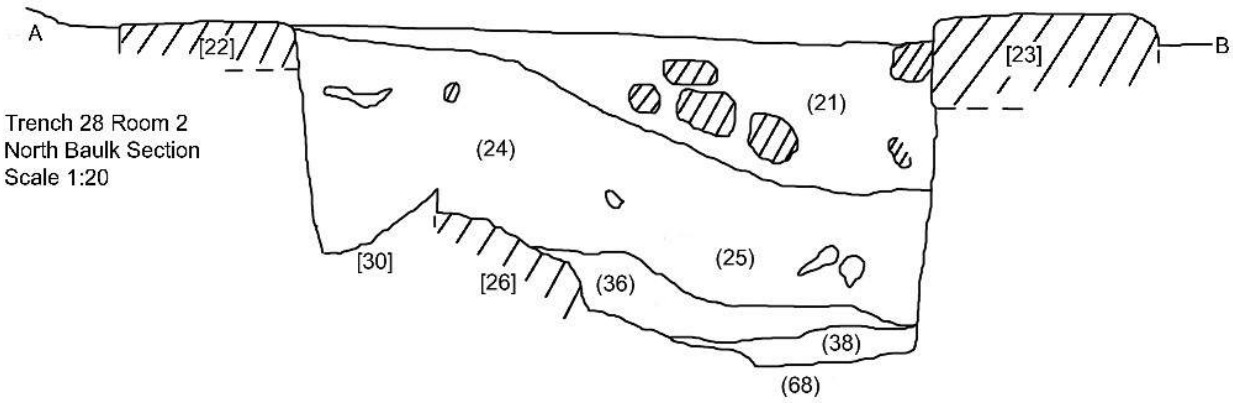


FIGURE 2.10 Trench 28 Room 2 north section.

This deposit (Contexts 21, 24, 34, 37) in turn rests upon a layer of loose silt, ash and clay (Contexts 35, 36 and 66; FIGURE 2.10). Mud-brick walls, or possibly platforms (Contexts 26, 72, 78 and 42), were located beneath the packing layer and apparently belong to a single structure (FIGURE 2.9). As the walls are only partially exposed and extend beyond the excavation area, it is difficult to determine the layout of the structure. A stone basin was also found beneath the packing in association with the walls (Context 30; FIGURES 2.9 and 2.10; PLATE A.12). The walls are preserved to a maximum of three courses, which suggests that the structure must have already been ruined or was intentionally destroyed for the construction of Building 1.

The north-south oriented wall/platform (Contexts 72 and 26) is built upon compacted clay and extends north beyond the excavation area. Another probable mud-brick wall (Context 78), again built upon compacted clay, butts against the eastern face of the north-south wall/platform in Room 2. The southern end of the latter wall (Context 72) butts against an east-west oriented wall (Context 42), which is set four courses deep into a foundation cut. The southern face of this wall was not revealed; however, the presence of the foundation cut suggests that it is a major structural wall, perhaps an external wall of the building. In Room 2, the clay packing on which these walls are built was removed to a depth of 60 cm, at which point part of the upper course of a mud-brick platform or wall was revealed in the south-east corner (Context 80). This appears to pass beneath the other walls and therefore belongs to an even earlier structure.

Trench 28 – Pottery (APPENDIX 2, Numbers **410**–**488**)

The pottery found in these deposits resembles to some degree the pottery found in Trench 22, but without the same range of elaborate vessels. The majority are utilitarian vessels such as storage jars (**438**–**439**; Form 65), cooking pots (**478**; Form 67), deep bowls (**415**, **417**; Form 30), and pot-stands (**420**, **440**, **479**; Form 100), which suggests that activities associated with food storage and preparation took place in this building. Two of the more significant finds were a pair of intact Bes-vessels (**436**, **487**; Form 80), which were found in Contexts 25 and 41 respectively. These contexts represent a packing layer on which Building 1 was constructed. Context 25 contained other complete vessels, such as a large jar (**438**) and a two-handled jar with a modelled rim and ring-base (**437**; Form 74). These vessels all seems to point to an Early Ptolemaic date for the packing layer; the large jars are coated in a deep plum-red slip, which appears to be a feature of Late Period/Early Ptolemaic Period pottery at the site (cf. CHAPTER 3), whilst the Bes-vessels are somewhat different to those found in Trench 22 and are decorated in a style more reminiscent of Early Ptolemaic pottery (cf. CHAPTER 3; Gill *Forthcoming a*).

In general, this assemblage can probably be dated to the late 4th or early 3rd century BCE (cf. CHAPTER 3). The fact that Early Ptolemaic pottery is found in the packing layer on which Building 1 is constructed, indicates that Building 1 was built sometime after this date, probably during the Late Ptolemaic or Early Roman Period.

A NOTE ON TRENCH 35

Trench 35 is located adjacent to and east of Trench 28 (Hope *et al.* 2009: 61–63; FIGURES 2.4 and 2.9). Deposits of Ptolemaic pottery were also identified within this trench; however, due to time constraints these were not fully examined and recorded. It is worth noting that in the southern part of this trench a packing deposit (Contexts 47 and 48) was revealed, which is similar to and perhaps part of the same packing deposit underlying Building 1 in Trench 28. Beneath this deposit, parts of two mud-brick walls were revealed (Contexts 52 and 53), which appear to be contemporary with the walls revealed beneath the packing in the adjacent trench (FIGURE 2.9).

Of note is an intact Bes-vessel (**774**; Form 79), which is similar in style to the vessel found in Trench 22 (**16**), was found lying against the face of the northernmost wall (Context 53; PLATE A.13). Considering the position of this vessel and the fact that it is complete, we might suggest that it was deliberately deposited here as part of a foundation ritual, designed to provide protection for the occupants (Gill *Forthcoming a*). Significantly, there are examples from both Tebtynis and Athribis where ceramic Bes figurines have been found built into the wall and floor of domestic structures (Barrett 2015: 411–412), and it is possible that these figurines were designed to perform a similar function to the Bes-vessel at Mut al-Kharab. Other notable finds from this trench include a rim sherd from a Black Ware plate (**760**; Form 4), which is probably of Nile Valley origin; and part of a possible *kantharos*, which appears to be of local manufacture, and which has a modelled vegetal feature applied to the handle (**762**). One additional vessel is also included in the corpus as it represents the only complete example of this type of vessel found in the oasis. This is a globular cooking-pot with horizontal loop-handles attached below the rim and an internal ledge rim designed for receiving a lid (**767**; Form 48).

TRENCH 31

This trench is a narrow strip measuring 2.0 x 9.0 m, which connects Trench 28 with the southern wall of the temenos (Hope *et al.* 2008: 55–56; FIGURE 2.4). The main purpose of the trench was to determine the relationship between the temenos wall and the structures revealed in Trench 28. In the southern part of the trench is a large area of mud-brick (Context 9), which may represent either a wall or platform (FIGURE 2.11). At its southern end it abuts the temenos wall (Context 21), while it extends 3.75 m to the north where it seemingly overlies two abutting east-west oriented walls (Contexts 30 and 31). In the central part of the trench a large intrusive pit (Context 13) was discovered. The fill of the pit (Contexts 5, 7, 10 and 29) comprised mud-brick rubble, sand, and pottery of mixed date, as well as a possible Ptolemaic coin (Reg. 31/006) in Context 7. This is a copper-alloy coin with a central perforation, but no discernible features. Removal of the fill in the pit revealed parts of two north-south oriented mud-brick walls (Contexts 18 and 20) as well as layers of compacted rubble fill (Contexts 19 and 28), all of which have been truncated by the pit. To the north of and also truncated by this pit is a compacted surface (Context 22), which abuts the southern exterior face of Building 1 (part of Trench 28). Contexts 19 and 28 contain pottery of Ptolemaic date. These contexts appear to represent what is in reality a single deposit of rubble packing, which was built to support the overlying wall (Context 18) and surface (Context 22). It is interesting that a similar sequence of construction can be seen in Trenches 28 and 22, where mud-brick platforms are found to overly rubble packing deposits of Early Ptolemaic date.

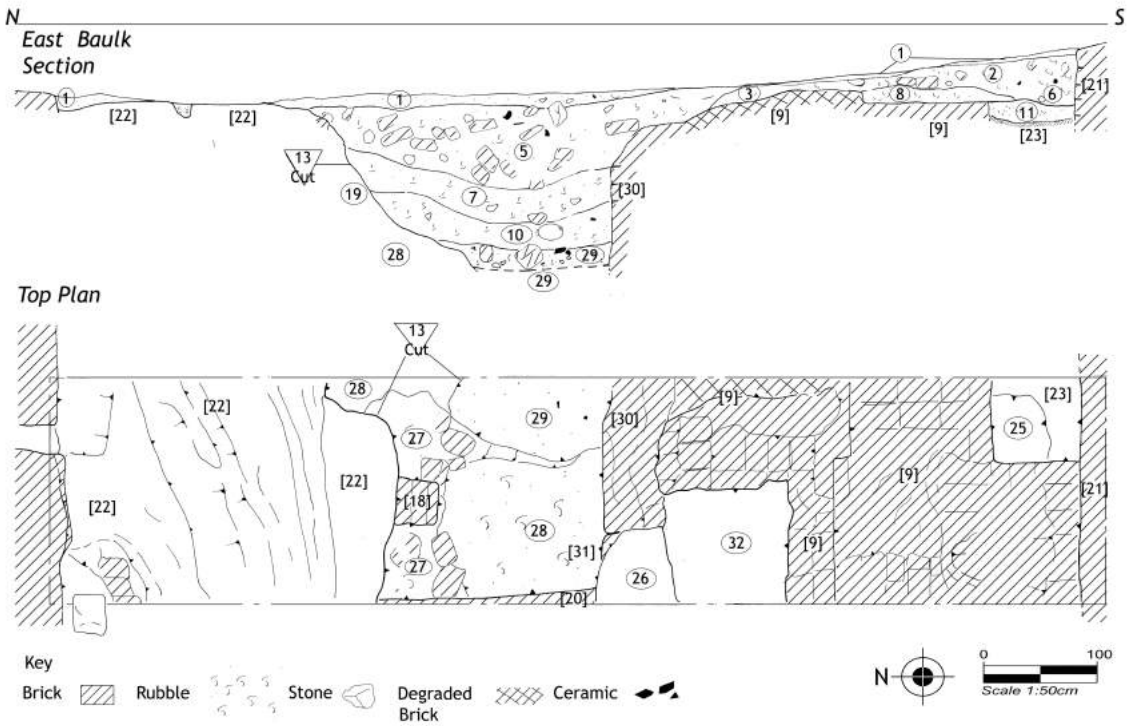


FIGURE 2.11 Trench 31 plan and section.

Trench 31 – Pottery (APPENDIX 2, Numbers **489–553**)

The pottery found in Contexts 19 and 28 is quite similar to that from Trench 22. Small bowls with flaring rims are common (**493–504**, **534–536**; Forms 38–39), as are bowls with flat bases and modelled rims (**507–508**, **540**; Form 24). Large jars decorated in typical Ptolemaic fashion are also present (**523**, **530–531**; Forms 63–65), along with examples that are probably undecorated (**524–529**, **546**, **549**). Other forms include deep bowls with modelled rims (**513–514**, **545**; Form 30), a keg (**518**; Form 94) and cooking-pots with ledge rims (**519**, **548**; Form 47), which are all comparable to vessels found in the Trench 22 contexts. This material is all quite fragmentary, with no complete vessels preserved. It probably represents rubbish used as a convenient fill for foundation packing. Like the assemblage from Trench 22, this pottery probably dates to the 3rd or 2nd century (cf. CHAPTER 3).

TRENCH 18

This trench is situated within the room of a mud-brick structure located on the west side of the temple (Hope *et al.* 2005: 42–43; FIGURES 2.2 and 2.3; PLATE A.14). The inner walls of the room (Contexts 8, 10, 12 and 14) are built in yellow mud-brick while the external walls are red or grey mud-brick, and as they are not bonded this may indicate several construction phases (FIGURE 2.12). Together these walls are more than two meters thick and contrast sharply with the relatively small size of the room (c. 2.0 x 3.0 m). A doorway (Context 13) is located at the east end of the south wall and leads to an adjacent room (Trench 21), which was originally paved with stone slabs (FIGURE 2.12). Those slabs that remained *in situ* were found to be reused blocks from earlier monuments, several of which originate from a monument of Horemheb, whilst one block bears the name of Ramesses II (Hope 2005a: 43–44).

A deposit of mud-brick (Context 15) was identified in the upper levels of the trench and might represent a floor level, particularly since the walls (Contexts 8, 10, 12 and 14) become narrower at this

level. One section of this possible floor level, located in the south-east corner of the room, was found to contain a small amount of pottery (Context 18), which appears to range in date from the Old Kingdom through to Ptolemaic Period, whilst the floor itself (Context 15) contained several Demotic ostraka of Late Ptolemaic date. This indicates that the floor was probably constructed towards the end of the Ptolemaic Period of later. Below this floor level (Contexts 15 and 18), sub-floor deposits were revealed in the north-east corner of the room, including a powdery deposit (Context 17), and a crumblier deposit (Context 20). Both deposits contained large numbers of Demotic ostraka, with more than a hundred found in Context 17. Context 20 also contained some ostraka, as well as a Ptolemaic coin (Reg.18/150). The ostraka are largely Demotic, although a few are inscribed in Greek, and they appear to comprise a single cache of Late Ptolemaic date (see Section 2.5 below).

In the north-east corner of the room beneath the deposit of ostraka (Contexts 17 and 20), the remains of a rectangular wooden box (Context 25), which contained a foundation deposit (Context 22+24), was discovered 42 cm below the lowest course of the east wall (Context 14), continuing to a depth of 107 cm (PLATES A.15–16). The foundation deposit itself was found to be lying on a shallow deposit of clean sand (Context 26) and appears to cut through much earlier deposits, which were found to contain Old Kingdom/Sheikh Muftah material.

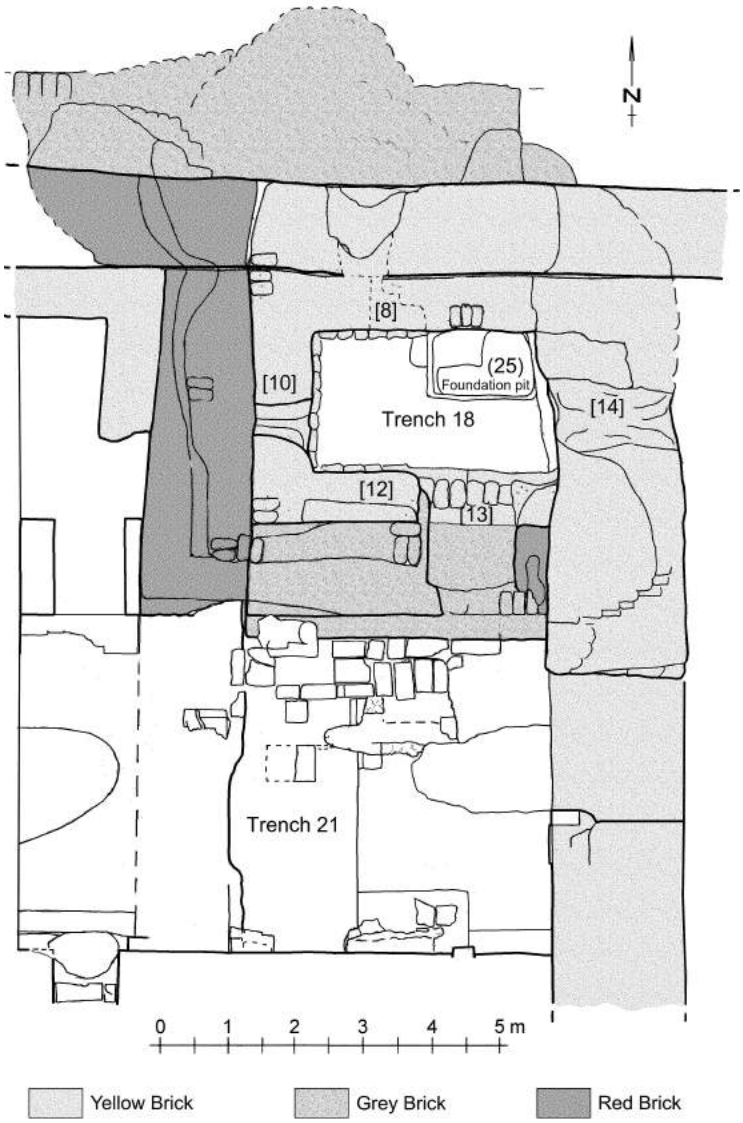


FIGURE 2.12 Plan of Trenches 18 and 21.

The Foundation Deposit

The foundation deposit contained a collection of moulds in ceramic and plaster, some inscribed with Demotic notations (FIGURE 2.13; PLATES A.15 and C.3–5). These moulds were used for the manufacture of glass or faience inlays for a monumental image of a falcon-headed god depicted with tripartite wig, collar, kilt and outstretched wings, which is probably to be identified as Seth (Hope 2005a: 42–43; Hope 2005b: 6; Kaper 1997: 63–64; for a detailed discussion of these moulds see now Hope *Forthcoming*). Comparable images of Seth from the Roman Period have been found in Dakhleh, whilst a similar image is found in a relief of Darius I at Hibis in Kharga (Aufrère *et al.* 1994: 95; Kaper 1997: 55–62). Two images of Amun-Nakht, who is represented with similar iconography to Seth, have been discovered in the temple at ʻAin Birbiyeh, dating to the Early Roman Period (Hope 2005a, 42; Kaper 1997, 71–74); importantly, these images were inlayed and give us an impression of what the image at Mut al-Kharab would have originally looked like (FIGURE 2.14).

Other objects found in the deposit include a diamond-shaped piece of glass (Reg. 18/181), a greywacke platter, a greywacke rod, a faience tile, a plaster sculpture of a male head, a bronze Osiris figurine and a faience plaque preserving a cartouche with the name Psamtek. The plaster sculpture (PLATE C.6) is probably a sculptor's model. Such models are common throughout the Late and Ptolemaic periods, and as they are often found in temple contexts, are thought to have been reused as votive objects (Tomoum 2005: 28–30; cf. Nos 46 and 47, which are dated to Dynasty XXX or the Ptolemaic Period).

The bronze statuette of Osiris (FIGURE 2.15) is a common type that is encountered both in the Nile Valley and in the oases, although they are difficult to date precisely on stylistic grounds. Caches of such figurines have been found at several sites in Kharga and Dakhleh, and appear to have been used as votive offerings in connection with temples of Late Period and Ptolemaic date. A small cache of bronze Osiris figurines were discovered in the temple area at Amheida (Area 4.1), in association with an animal necropolis of Late Period or Early Ptolemaic date (Davoli 2012: 266–267). At the temple of ʻAin Manawir in Kharga, three hundred and seventy bronze Osiris figurines were discovered (Wuttmann *et al.* 2007: 167–173), whilst at Hibis temple almost a hundred bronze figurines of Osiris were found in the court east of South Building II (Winlock 1941: 42–43); both groups can be dated to the Late Period or Early Ptolemaic Period.

The foundation deposit appears to have been buried during the Late Ptolemaic Period (Hope *Forthcoming*). The fill directly overlying the deposit contains Demotic ostraka of late Ptolemaic date, as well as a Ptolemaic coin (Hope 2005a: 42–43; Hope 2005b: 6; Vittmann 2012: 23), whilst isolated potsherds found both in and below the deposit are Ptolemaic in date (see below). The bronze Osiris figurine and the plaster sculptor's model can both be dated to the Late Dynastic or Ptolemaic Period; a more specific date cannot be determined as they could have been manufactured some time before they were buried. A similar date range can be proposed for the moulds (Hope *Forthcoming*). The plaque bearing the name Psamtek must be considered an heirloom.

Trench 18 – Pottery (APPENDIX 2, Numbers **554**–**567**)

In contrast to the other trenches discussed in this chapter only a small amount of pottery was found in Trench 18. Ten of the ostraka are written on diagnostic sherds, which include small carinated bowls (**555**, **563**; Form 38), a rim from a deep bowl (**562**; Form 30) and two rims from neckless jars (**559**–**560**; Forms 60–61). A palaeographic analysis of the texts points to a Late Ptolemaic date (cf. below), which is consistent with the range of forms encountered here. Apart from the ostraka, only four diagnostic sherds were recovered from the fill of the trench. Two fragmentary vessels found associated with the foundation deposit are likely of Ptolemaic date (**565**–**566**; Forms 6 and 20), as are the two rims from large jars found in the surrounding fill (**564**, **567**; Form 64).

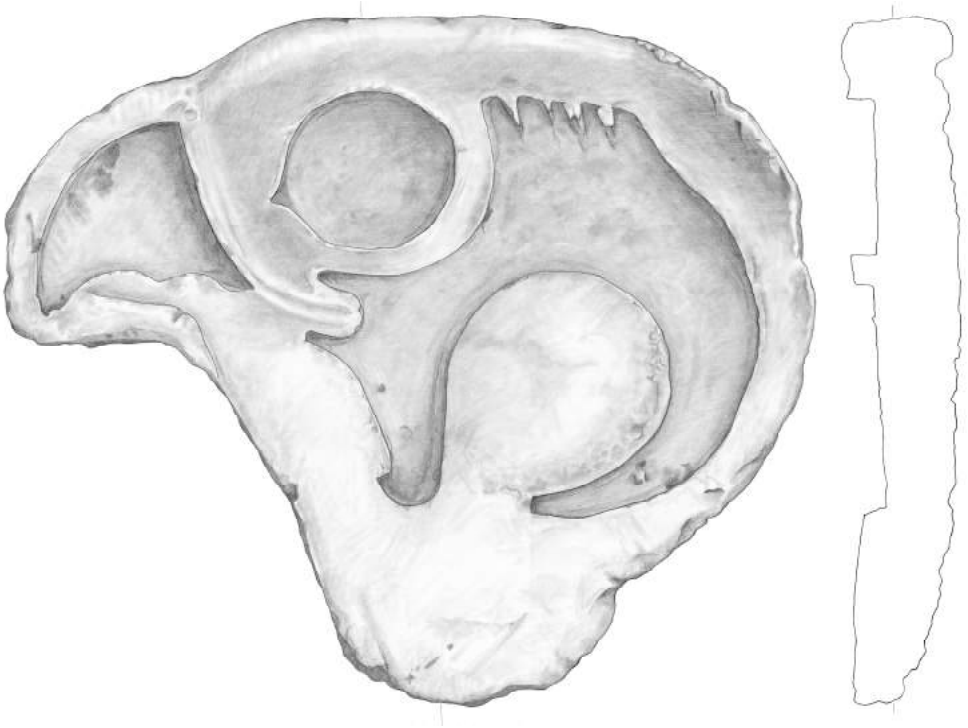


FIGURE 2.13 Example of plaster mould for the manufacture of glass inlays, Trench 18 foundation deposit (scale 1:5, drawing J. Gill).

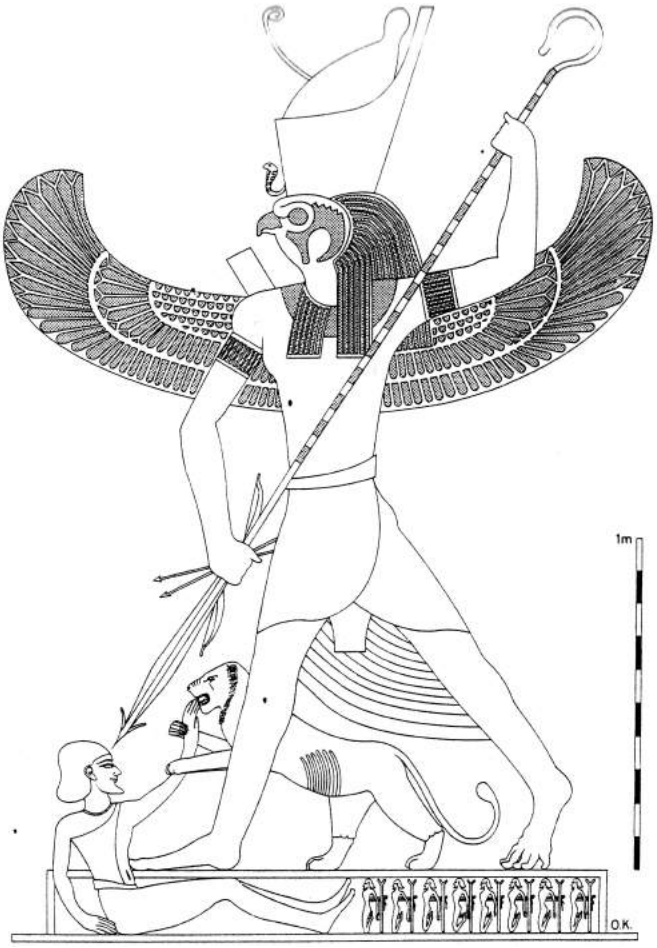


FIGURE 2.14 Reconstruction of the inlayed image of Amun-Nakht from the gateway at 'Ain Birbiyeh (after Kaper 1997: Fig. 40).

FIGURE 2.15 Reg. 18/180: Bronze statue of Osiris, Trench 18 Context 22 (scale 1:2, drawing B. Parr).

TRENCH 15

This trench is located on the eastern side of the depression that marks the location of the ruined temple (Hope 2004a: 29; FIGURES 2.2 and 2.3). It measures 8.0 x 4.0 m with an additional 2.0 m extension to the west. At the eastern end of the trench are two mud-brick walls oriented north-south (Contexts 16 and 13), which are built upon a large east-west wall or platform (Context 12) at their south end (FIGURE 2.16). An additional mud-brick platform (Context 29) is built against the west face of the western wall (Context 16). At the western end of the trench is another north-south mud-brick wall (Context 2), which is only a single brick wide and was found to be partially built over a deposit of crushed sandstone (Context 21). Below this deposit are the remains of a sandstone wall (Context 27), oriented north-south and measuring 1.575 m wide. The sandstone wall has been largely destroyed, although at least three courses are preserved in this trench. This stone wall clearly belongs to the main temple structure.

The date of both the stone wall and the mud-brick walls are unclear; however, it has been suggested that the mud-brick walls belong to a construction phase that post-dates the destruction of the stone wall (Hope 2004a: 29). It is clear that the narrow mud-brick wall (Context 2) must have been built after the destruction of the stone wall, as it sits upon the deposit of crushed sandstone (Context 21); however, the walls at the eastern end of the trench may in fact be contemporary with the sandstone wall. The north-south mud-brick walls are aligned with the stone wall as is the Context 29 platform, whilst the Context 12 platform/wall ends just short of it. Furthermore, the deposit of sandstone rubble (Context 21), which represents the destruction phase of the wall, lies against the west face of the platform (Context 29), suggesting that the platform was built before the stone wall was destroyed.

Two contexts at the eastern end of this trench appear to relate to a Ptolemaic phase of occupation. Context 18 is a packed mud surface, on top of which the surrounding walls (Contexts 16, 13 and 12) are built. This surface and the deposit of ash and soil directly below it (Context 28) contain pottery of Early Ptolemaic date. A few Ptolemaic types were also found alongside Late Period pottery types within the rubble deposits (Contexts 34 and 36) immediately below this. This suggests that these foundations were laid during the Early Ptolemaic Period and that the structure represented by the north-south mud-brick walls (Contexts 16 and 13) was used during the Ptolemaic Period. The Context 29 platform may in fact belong to the same foundation packing as Context 18.

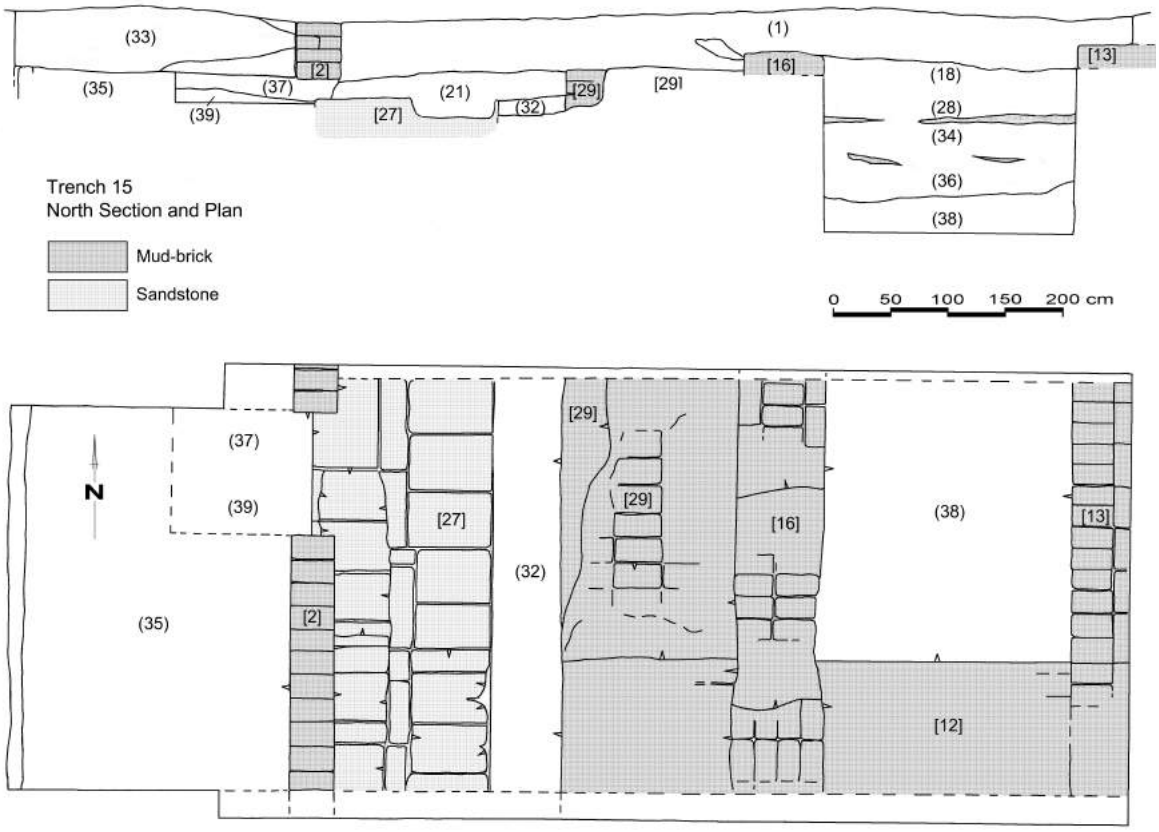


FIGURE 2.16 Trench 15 plan and section.

Trench 15 – Pottery (APPENDIX 2, Numbers **568**–**650**)

The pottery comprises mainly utilitarian vessels, such as small bowls with modelled rims (**573**, **579**; Forms 24 and 38), deep bowls (**577**, **580**; Form 30), pot-stands (**589**; Form 100), large neckless jars with rounded rims (**605**–**606**, **608**; Form 59), and necked-jars with modelled rims (**601**–**602**; Form 64). There is also an example of a large jar decorated with red and black bands and dots over a cream slip (**600**; Form 66). In general, the pottery in this deposit can be ascribed a Ptolemaic date, although a few vessels points to a date at the beginning of this period. The neckless jars (**605**–**606**, **608**) are common in the Late Period but continue to be found in Early Ptolemaic deposits, eventually disappearing by the late Ptolemaic Period (cf. CHAPTER 3, Form 59). The bowls made in Fabric B15 (**570**–**571**, **574**) also suggest an earlier date, as these fabrics are common in Late Period contexts and are only rarely encountered in the Ptolemaic Period (CHAPTER 3). A date in the early 3rd century BCE is suggested for this assemblage.

2.3 A TRANSITIONAL LATE PERIOD/EARLY PTOLEMAIC PERIOD DEPOSIT

This deposit is presented separately because it appears to represent an occupational phase dating to the mid to late 4th century BCE, to the end of the Late Period or the earliest part of the Ptolemaic Period. It comprises some types that are characteristic of the Ptolemaic Period, but there are noticeable differences between this material and that found in Ptolemaic deposits elsewhere at the site. In addition, a number of forms in this deposit should be given an earlier date, which all together suggests that the assemblage should be dated to the mid to late 4th century.

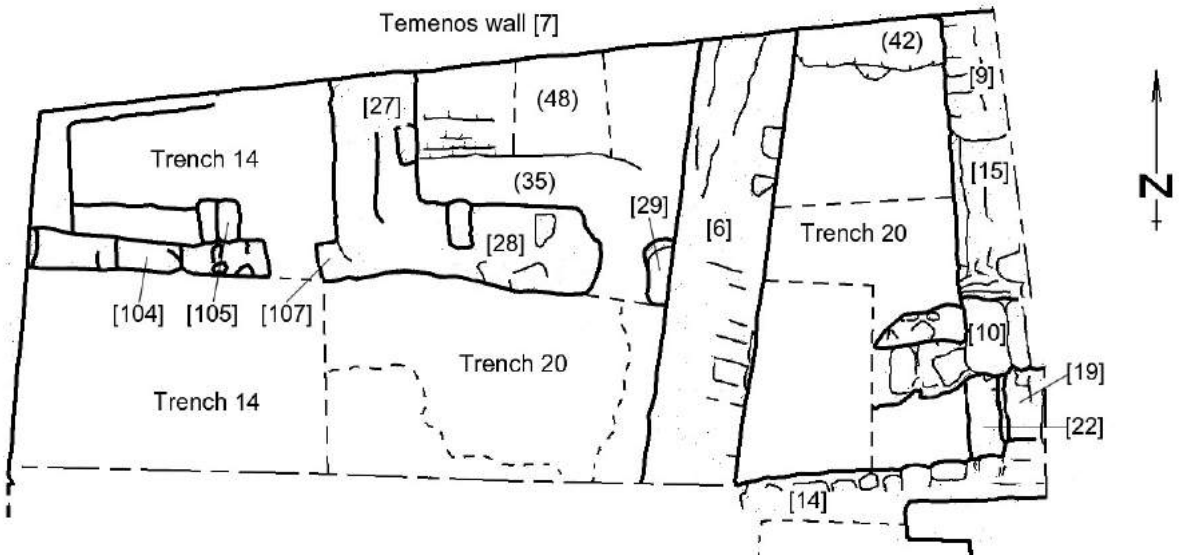


FIGURE 2.17 Plan of Trenches 14 and 20 in the north-west corner of the temenos.

TRENCH 20

Trench 20 is located in the north-west corner of the site to the east of Trench 14 and against the north wall of the temenos (Hope 2005a: 46; FIGURES 2.2 and 2.17; PLATE A.17). The aim of the excavation was to date the buildings in this area and to reveal the base of the temenos wall. The latter aim was achieved and the base of the wall was found to be set into an irregularly cut foundation trench. Based on the pottery found in this trench the temenos wall appears to have been built during the Late Period, probably during or just before Dynasty XXVII (Hope 2005a: 46).

Within the mud-brick structure located in Trench 20 a compacted mud layer was revealed (Context 25). This appears to be a deliberate surface, with evidence of mud-plaster (Context 24) in places, and scattered potsherds. Immediately below and sealed by this surface is a sandy deposit (Context 35; PLATE A.18) with a high concentration of pottery and fragments of sandstone architectural elements, which is probably a deliberate fill deposit. Below this is a similar deposit (Context 36), again with a high concentration of pottery, but with a large number of complete vessels and some slight differences in composition.

Trench 20 – Pottery (APPENDIX 2, Numbers **651**–**759**)

Many of the pottery types within Context 35 can be ascribed a 4th century date. The small bowls with everted rims (**655**–**662**) have a long history of production, from at least Dynasty XXVI through to the Early Ptolemaic Period (Hope 2003a: 66). Parallels from Elephantine date to the 4th century (Aston 1999a: Pl. 82, Nos 2245–2248; Pl. 83, No. 2260) and Late 3rd to 2nd century (Aston 1999a: Pl. 111, Nos 2939–2943). The series of deep bowls with slightly modelled rims and presumably rounded bases (**689**–**697**) are characteristic of the Persian Period with examples found throughout Egypt (Aston 1999a: 223–224; cf. Pl. 69, Nos 1987–1988); however, a similar form with a ring-base is encountered within a 4th century context at Elephantine (Aston 1999a: Pl. 82, Nos 2249–2250). Given that the examples from Trench 20 are mostly missing their bases it is impossible to determine an exact date for these vessels. The large decorated jar with two small handles on the shoulder (**731**) is paralleled at Thebes and Elephantine where examples are dated to the 4th and 3nd centuries (Aston 1999a: 292, Pl. 96, Nos 2536–2538; Schreiber 2003: Nos 124–127).

Certain other types within this deposit are encountered in Ptolemaic contexts elsewhere at the Mut al-Kharab and should thus be ascribed a Ptolemaic date. These include a small incurved-rim bowl (**670**; Form 11), a cooking-pot with horizontal loop-handles (**707**: Form 47), large jars with modelled rims (**719**–**724**; Forms 64–65), deep bowls with modelled rims (**671**–**680**; Forms 29–30), and short-necked kegs with modelled rims (**735**–**736**; Form 96), although the latter appears to have been produced already during the 4th century (cf. Marchand 2000b: Figs 5–6; 2007: Fig. 17). The deep bowls with modelled rims and painted decoration (**703**–**706**; Forms 45–46) are encountered in Early Ptolemaic contexts at Karnak (Masson 2011: Figs 61–62, 64), but also in 4th and 3rd century contexts at Elephantine (Aston 1999a: Pl. 79, No. 2194; Pl. 94, No. 2508), whilst the short-necked jar (**709**; Form 59) is found in 4th century contexts at Mut al-Kharab (Hope 2003: Fig. 11o), as well as 3rd century contexts at Elephantine (Aston 1999a: Pl. 108, No. 2848). A sherd from a Bes-vessel (**756**) was also recognised within the Trench 20 deposit, and although the overall form is unknown, the style of the decoration is clearly very different to the Bes-vessels found in Ptolemaic contexts elsewhere at the site (cf. **16**, **774**; and cf. CHAPTER 3). Based on parallels from the Nile Valley this Bes-vessel should probably be ascribed a 4th century date, and certainly a date earlier than the Bes-vessels found in Trenches 22, 28 and 35 (Gill *Forthcoming a*).

Other decorated vessels in the deposit are likewise different in style to those encountered in Ptolemaic contexts elsewhere at the site. For example, the large decorated body-sherd (**752**) bears a floral motif that is a characteristic feature of Ptolemaic decoration yet the style and execution are unlike Ptolemaic painted decoration found in the other trenches (cf. CHAPTER 3). The decoration is somewhat similar to that found on a large jar from the tomb of Ankh-Hor in Thebes, which has been dated to the late 4th or early 3rd century BCE (Bietak and Reiser-Haslauer 1978: Figs 9–10; cf. Schreiber 2003: Pl. 15, 207). A few other decorated sherds are found in the deposit, although these are again unlike the decorated vessels encountered in Trench 22 that date to the 3rd or 2nd century (cf. above). Given this difference in the style of the decoration, as well as the range of forms encountered, a mid to late 4th century date appears most likely for this deposit.

2.4 MISCELLANEOUS POTTERY FROM OTHER TRENCHES (APPENDIX 2, Numbers **760**–**784**)

In addition to the pottery presented above, a substantial number of Ptolemaic types were recognised within disturbed deposits from various trenches across the site (TABLE 2.1). Most of these types are similar to those encountered within the key deposits and are therefore not discussed here; however, a few are unique or represent a more complete example of a particular form and thus I have chosen to include them in the corpus. I have also included a small selection of vessels for which parallels can be found in Ptolemaic assemblages from the Nile Valley, yet which are not found otherwise within the key Ptolemaic deposits at Mut al-Kharab. Furthermore, a number of decorated sherds have also been included in order to better illustrate variations in the designs encountered amongst the Ptolemaic material (cf. CHAPTER 3).

Of particular interest are the four Ptolemaic Black Ware vessels, which represent both local and Nile Valley imitations of Greek black-polished ware (**760**–**761**, **768**, **773**; cf. Gill 2012a). An additional Greek imitation comes from Trench 35 (**762**) and appears to be a local version of a Greek *kantharos* with an applied/modelled vegetal feature upon the handle. Trench 1 (FIGURE 2.1) has yielded two Ptolemaic types that are not encountered elsewhere at the site, including a rim from a large decorated bowl (**764**; Form 33), and another from a decorated short-necked jar (**769**; Form 62).

As mentioned above, a well-preserved Bes-vessel was recovered from Trench 35 (**774**; Form 79), which is quite similar to a fragmentary vessel found in Trench 22 (**16**). A small piece from a third Bes-vessel of a potentially similar type was also found in Trench 37 (**776**). These vessels are of particular

interest as they represent the only known Bes-vessels of Ptolemaic date to be found anywhere in the published literature (CHAPTER 3; cf. Gill *Forthcoming a*).

Two complete examples of small double-gourds (**770**–**771**; Form 56) were found in Trenches 34 and 23 respectively (FIGURE 2.1), a type which is well-attested within the Ptolemaic deposits at the site, but usually only in fragmentary form. Similarly, a cooking-pot with two horizontal loop handles (**767**; Form 48) comes from Trench 35, which represents the only complete example of this type discovered in the oasis. Despite this being a very common type, its function as a cooking vessel has usually resulted in the bases becoming brittle and breaking.

2.5 PTOLEMAIC OSTRAKA FROM MUT AL-KHARAB

During the course of excavations many hundreds of ostraka have been found, and continue to be found across the site. Hieratic, Demotic, Greek and Coptic ostraka are all attested and provide information on various phases in the history of the site. Most relevant to this study is a large group of Demotic and Greek ostraka that date to the second half of the Ptolemaic Period. Many of these come from a cache found in Trench 18, from within a building adjacent to the temple, whilst others come from trenches in the north-west and south-east corners of the temenos (particularly Trenches 22, 28, 31 and 35). The study of the Demotic ostraka has been undertaken by Günter Vittmann, whilst the study of the Greek ostraka has been the work of Klaas Worp. The following is a brief description of the Ptolemaic ostraka, based largely upon the unpublished notes of Vittmann and Worp; a more detailed study of the Demotic material has been published by Vittmann (2012).

DEMOTIC OSTRAKA

The Demotic ostraka discussed here have been ascribed a Late Ptolemaic date on palaeographic grounds, as well as the presence of regnal years in some cases. This dating is confirmed by an analysis of the sherds themselves, which include a small number of diagnostic types (**554**–**563**). Although many of the ostraka preserve regnal years, it is standard for Demotic ostraka of the Ptolemaic Period to omit the name of the king (Nur-el-Din 1982: 103). This makes it difficult to determine the king to whom the regnal year refers, unless the regnal years are particularly high, as is the case for the Mut ostraka; where we encounter years such as 49, 50, 52 and 54, these can be equated with Ptolemy VIII Euergetes II, the only Ptolemaic king to rule for this length of time.

A notable feature of the ostraka is that the majority have either very high regnal years (i.e. 42–54) or low regnal years (i.e. 2–7), with only a small number falling in between. Due to the fact that certain individuals, for example 'Phibis son of Peteyris', are mentioned in ostraka with both high and low regnal years, it appears likely that those with lower years correspond to the reign of one of the immediate successors of Ptolemy VIII (Vittmann 2012: 24). Many of the ostraka can thus be attributed to a specific ruler and date.

The ostraka are all administrative in nature and largely comprise receipts and orders for payment. Many of the texts mention temple personnel, taxes and other temple related activities, and clearly indicate that the temple continued to operate throughout the Ptolemaic Period. It remained dedicated primarily to Seth, as demonstrated by the many references to 'the scribes of Seth' (cf. Vittmann 2012: 22, Table 1), as well as the 'god's offering of Seth' (Reg. 18/014; 18/56; 18/99; 18/101; 18/112). Various other gods apparently also had shrines here, such as Osiris who is attested by references to the 'god's offering of Osiris' (Reg. 18/113; 18/120), as well as the title 'prophet of Osiris' (Reg. 18/41). Other gods, such as Amun, Horus, Isis, Hathor and Khonsu are also attested (cf. Vittmann 2012: 28, Table 3).

The texts make mention of the *ḥtr*-dues and the *ḥtp-ntr*-dues, which are rarely mentioned in Demotic ostraka from the Nile Valley, yet are both attested in the ostraka from el-Muzawwaqa (Nur-el-Din 1982). The *ḥtr*-due appears to be a tax that is paid yearly to the temple (the texts mention 'the *ḥtr*-due of year X') and can be paid in oil, wheat, or silver. This tax is then redistributed to cover various expenses within the temple. The *ḥtp-ntr*-due (the god's offering) also appears to have been paid on a yearly basis (the texts mention the god's offering of year X) and is frequently mentioned in relation to Seth, although Osiris and Isis are also listed as recipients.

The taxes were paid in various forms, occasionally in silver or copper, but most often in agricultural products, usually wheat and oil. Other items mentioned in the ostraka include wine, olive oil, olive trees, barley, grapes, lotus oil and myrrh (Vittmann 2012: 30). The last two were likely imported into the oasis from elsewhere; however, the frequent mention of wheat, oil and wine, as well as the references to olive trees, suggests that these three represented the bulk of agricultural production in Dakhleh during the Ptolemaic Period. Similar products are also mentioned in the Ptolemaic ostraka from el-Muzawwaqa (Nur el-Din 1982).

The ostraka also provide us with the names of many individuals who were associated with the administration of the temple, including priests, scribes and other personnel. Some of these occur with relative frequency, and in some instances it is possible to trace familial connections over several generations. Two of the most frequently attested individuals are a priest named 'Phibis son of Peteyris', whose name occurs at least thirty times, and a scribe named 'Sethirdis son of Imuthes' (e.g. Vittmann 2012: 24–27).

Greek Ostraka

The Greek ostraka are much fewer in number than those in Demotic and are yet to be studied in detail. They appear to be largely administrative in nature and include receipts and orders for payments, similar to those encountered amongst the Demotic ostraka. A few of the Greek ostraka are dated to the Ptolemaic Period on palaeographic grounds, whilst at least two preserve regnal years.

2.6 Summary of Ptolemaic activity at Mut al-Kharab

Mut al-Kharab is one of the few sites where we can be certain that a temple was functioning during the Ptolemaic Period. This is clearly demonstrated by the large number of Late Ptolemaic ostraka, which record the day-to-day activities of the temple (Vittmann 2012; cf. above). Both the plan and decorative scheme of the temple are unknown, as the building is almost completely destroyed, and the few surviving *in situ* architectural elements are probably of Roman date (Hope *et al.* 2009: 65). Several inscribed stone blocks have been discovered reused as paving in areas adjacent to the temple (Hope 2005b: 4–5; Hope *et al.* 2009: 64); however, none of these are of Ptolemaic date.[2] It is currently unclear whether or not the existing temple was refurbished during the Ptolemaic Period, although it is highly likely given that the temples of Hibis (Winlock 1941: 33–35) and Qasr el-Ghueita (Darnell *et al.* 2013: 18–20) each received Ptolemaic additions. The only potential evidence for the decoration of the temple during the Ptolemaic Period is the deposit of moulds discovered in Trench 18 (Hope *Forthcoming*). These moulds, which likely date to the Early Ptolemaic Period, were used to create glass inlays for a monumental image of Seth, which possibly formed part of the decoration added to the temple by the Ptolemies.

[2] Fragments of statues representing fecundity figures of Ptolemaic date have been reported from the site (Hope 2005b: 4), although this dating is far from certain, and they could easily be Ptolemaic or Roman (O. Kaper pers. comm. 2011).

Ptolemaic building activity is also evident in other parts of the temenos, particularly in the south-east corner, although like the temple, these structures are almost completely obliterated. All together we have a highly complex sequence of building activities at the site, which makes it very difficult to isolate those remains relating to the Ptolemaic phase of occupation. In some cases, Ptolemaic pottery is associated with architectural features such as sections of walls or platforms, which indicates that these structures were built and/or occupied during the Ptolemaic Period. It is perhaps significant that all of the Ptolemaic deposits, apart from that located in Trench 18, appear to represent packing deposits, which have been deliberately laid in order to create foundations for the overlying structures. Some of these packing deposits are capped with compacted surfaces or platforms, which in some cases would have functioned as floors for the new structures. This pattern of construction can be seen in Trenches 22, 28 and 31 in the south-east corner, as well as in Trench 15 adjacent to the temple. We might speculate that these building activities were part of a broader refurbishment of the temple precinct during the Ptolemaic Period, which might have also incorporated embellishments to the temple itself.

Given that the temple appears to have occupied only a small portion of the area inside the temenos, it is logical that some of the space was taken up by living quarters for temple personnel. The buildings uncovered in the south-east corner of the temenos can probably be associated with such a function, based on the pottery and other finds. Many of the vessels found in this area are connected to cooking and food preparation, which indicates that these activities took place here; however, there are also a significant number of highly decorated tableware vessels, which suggests that the individuals who consumed this food enjoyed a relatively high status, perhaps individuals like 'Phibis son of Peteyris', who is mentioned frequently in the ostraka (cf. above). The presence of Greek imports and imitation black-ware vessels at the site is further evidence for the comparatively high status of the people who lived here (cf. Gill 2012a). Other parts of the temenos were probably occupied by administrative buildings and storage magazines. Whilst little remains of these buildings, we do get some impression from the ostraka of the types of goods that would have been collected as payment for taxes and subsequently stored in such magazines.

All together, the evidence points to the existence of a major Ptolemaic temple at Mut al-Kharab. The size of the temenos alone suggests that it was the largest and most important temple in Dakhleh, and it likely rivalled the temple of Hibis in Kharga. The settlement connected to the temple has been completely obscured by the modern town, although a series of Ptolemaic cemeteries scattered around the surrounding area provide some indication of its size. The relative size of Mut al-Kharab in comparison to other Ptolemaic sites in Dakhleh will be explored more fully in CHAPTER 4.

CHAPTER 3

PTOLEMAIC POTTERY FROM DAKHLEH OASIS

Until work on the Dakhleh ceramics has progressed much further it is to be understood that such terms as 'Roman' and 'Christian' are used very loosely, and that material attributed to the former period may include pottery used during the rule of the Ptolemies…

Hope (1981: 234).

De plus la méconnaissance des céramiques de cette période tant dans l'oasis de Kharga que dans celle de Dakhla, ne pouvait qu'inciter à la prudence.

Marchand (in Wuttmann *et al.* 1998: 437).

When we talk about pottery in Ptolemaic Egypt, we are largely talking about quite mundane remains. Ptolemaic pottery was rarely decorated, so it was not a vehicle for artistic or symbolic representation…In fact most of what is found on excavation is uninspiring – literally and simply ancient dishes and pots and pans.

Berlin (2013: 230).

3.1 INTRODUCTION

The following chapter presents a detailed analysis of Ptolemaic pottery from Dakhleh Oasis. This study is based largely on the pottery from Mut al-Kharab as this represents the most abundant and the best documented Ptolemaic pottery in the oasis; however, this material has been supplemented with pottery from other sites in Dakhleh. In particular, a substantial amount of pottery from funerary contexts has been incorporated, which is important as material of this kind is not represented at Mut al-Kharab. Indeed, this decision has proved useful as several of the forms discussed below are only found in tomb contexts.

The aims of this analysis are to determine the key features of the Ptolemaic pottery tradition in Dakhleh and to establish a corpus of Ptolemaic pottery for the oasis. Below I discuss several important aspects of this material, including fabric, ware, decoration, form and function. I will conclude with a summary of the main characteristics of this material and discuss how Ptolemaic pottery can be distinguished from that of other periods. The results are important as it is pottery that has been selected as the primary evidence for dating Ptolemaic sites in the oasis.

3.2 PREVIOUS RESEARCH

This study presents the most extensive and detailed examination of Ptolemaic pottery from the Western Desert to date; however, there are a number of previous studies that have dealt with this material to varying degrees. These studies have been extremely useful in providing comparative material and allow some observations to be made for the Western Desert as a whole. I have also relied

heavily on publications dealing with Ptolemaic pottery from the Nile Valley, as the ceramic traditions of the two regions are closely linked. In most cases, the Ptolemaic pottery from Dakhleh has been dated on the basis of comparisons with parallels from the Nile Valley. In the following section I outline previous scholarship relating to Ptolemaic pottery from Dakhleh Oasis, as well as from the broader Western Desert and the Nile Valley respectively.

DAKHLEH OASIS

Prior to the work of the Dakhleh Oasis Project, very little had been published concerning the ancient pottery of Dakhleh. One exception is the work of Winlock (1936), who made notes on the surface pottery at many of the sites that he visited. For example, Winlock described pottery from the surface of Ismant al-Kharab (Winlock 1936: 21), Amheida (Winlock 1936: 25–26), Dayr al-Haggar (Winlock 1936: 36–37), and Mut al-Kharab (Winlock 1936: 40), as well as from the desert routes leading to and from Dakhleh (Winlock 1936: 14–15, 45). He also published a selection of drawings (Winlock 1936: Pls VI–VII) and photographs (Winlock 1936: Pl. XIV), and whilst most of this appears to be of Roman date, a few sherds are probably Ptolemaic (e.g. Winlock 1936: Pl. VI, nos 10 and 25).

A detailed analysis of ancient pottery from Dakhleh did not begin until the late 1970s, when the DOP and l'IFAO both commenced archaeological exploration of the oasis.[1] Preliminary reports on the survey work of the DOP published in the late 1970s and early 1980s presented a selection of pottery from various sites around Dakhleh (Hope 1979; 1980; 1981; 1983), and at this initial stage of the project, the presence of Ptolemaic pottery in the oasis was already noted. For example, Hope (1981: 233) reported the discovery of a Ptolemaic Black Ware sherd at Mut al-Kharab, as well as numerous additional potsherds of possible Ptolemaic date. The pottery of the late Pharaonic, Ptolemaic and Early Roman periods was extremely difficult to distinguish at that stage and was placed under the broad heading of 'Roman' (Hope 1981: 233–234), with the expectation that this designation could be later refined. Some of the pottery published in the early reports (Hope 1980: Pls XXII.k–XXIV.d; 1981: Pls XXIII.h–XXV.e, XXVI.a–o; later republished in Edwards *et al.* 1987) was subsequently re-dated as Ptolemaic by Hope (1999: 230).

The first study to specifically discuss the Ptolemaic pottery from Dakhleh was published by Hope in 1999. This study comprised an overview of the key characteristics of the pottery from each period, ranging from prehistoric through to Byzantine times. The Ptolemaic pottery was discussed separately from that of the Late and Roman periods, although it was still 'not as yet possible to present a clear picture of the Ptolemaic Period manufactures' (Hope 1999: 229). Some of the material that had been incorrectly dated as Roman during the survey phase of the project was re-identified as Ptolemaic based on comparison with pottery from sites in the Nile Valley, whilst a range of material from 'Ain al-Azizi was tentatively dated as Ptolemaic (Hope 1999: 230), although the latter can now be dated to the Late Period (cf. Hope 2000). Despite the fact that some Ptolemaic pottery had been recognised, the distinction between Late Period, Ptolemaic and Roman pottery remained unclear.

This last issue was addressed a short time later by Patten (2000) in an unpublished PhD thesis submitted at Macquarie University. Building on the work already completed by Hope, Patten (2000: Pt 1.110–111) created a corpus of pottery dating to the Late Period, Ptolemaic and Early Roman periods and as a result was able to identify ten sites within Dakhleh that had yielded Ptolemaic pottery. Patten (2000: 111) noted the scarcity of Ptolemaic pottery compared to that of other periods, which she

[1] The mission of l'IFAO at Balat has focussed its work predominantly on the Old Kingdom and First Intermediate Period remains, although pottery ranging in date from the Old Kingdom through to Roman Period has been recorded. Whilst Ptolemaic activity has been recognised within the adjacent cemetery of Qila el-Dabba, only one potential Ptolemaic vessel has been published (Minault-Gout 1992: 183, 202); cf. also APPENDIX 4, Site 58. For an overview of the first season of work on the pottery by the DOP, see Hope (1979).

speculated was the result of this material being obscured by that of the Roman Period. In fact, it was probably also a result of the limited amount of Ptolemaic pottery available for study at the time, combined with a lack of knowledge of what this material should look like.

Six years later, Eccleston (2006) completed a study of the high-temperature industries in Dakhleh during the Ptolemaic and Roman periods, in an unpublished PhD thesis submitted at Monash University. This study focussed on the technological and social aspects of metal, faience and pottery production in the oasis and offered some useful results in relation to the identification and classification of oasis clays, which is of particular interest for the present study. Eccleston dealt with Ptolemaic and Roman pottery production from a technological point of view, and thus he did not attempt to create a corpus of Ptolemaic pottery, nor did he consider the morphological or stylistic characteristics of this material. In reality, Eccleston's research focussed predominantly on evidence from the Roman Period, as there was very little in the way of Ptolemaic material available for study. Despite the fact that Ptolemaic pottery had been discovered at Mut al-Kharab in 2005 (cf. Hope 2005a: 44–45), Eccleston's research was completed prior to this, so he was unable to incorporate this material into his study (Eccleston 2006: 88).

During the past decade, excavations at Mut al-Kharab have revealed a large amount of Ptolemaic pottery from stratified contexts, enabling a re-evaluation of this material and providing an opportunity to build upon the previous work of Hope, Patten and Eccleston. Some of the Ptolemaic pottery from Mut al-Kharab was outlined briefly by Hope in a few of the preliminary excavation reports, which also included a small number of illustrations (Hope 2005a: 44–45, Figs 15–16; Hope *et al.* 2006: 37–40, Figs 14–16; Hope/Bowen *et al.* 2009: 59–63, Fig. 9); however, Hope's discussion of this material was preliminary in nature and was intended only as a brief overview of what had been discovered. Since then more detailed studies of the Ptolemaic pottery from Mut al-Kharab have appeared which are based on research completed by the author over the course of the present study. These include a preliminary analysis of Ptolemaic pottery from the site (Gill 2012b) and a study of Ptolemaic Black Ware (Gill 2012a). Several other specialised studies are forthcoming (Gill *Forthcoming a; c; d*).

THE WESTERN DESERT

One of the earliest sources to mention Ptolemaic pottery from the Western Desert was Fakhry (1942: 35; 1944: 68, 74; 1950: 85, 105) in his studies of Bahariya and Siwa Oasis. No drawings or descriptions were provided, although photographs were published in one case (Fakhry 1950: Pl. XXX–XXXI), so it is generally impossible to know what types of vessels were encountered, the number of vessels, or indeed whether they should be attributed a Ptolemaic date. As various archaeological projects have begun working in the oases in more recent years, an increasing amount of Ptolemaic pottery has been discovered, which has been published in some cases. Most of this material has been found in Kharga, particularly at the sites of 'Ain Manawir (Marchand 2000b; 2007; Marchand in Wuttmann *et al.* 1996; 1998) and Dush (Ballet in Reddé *et al.* 2004; Marchand 2007) in the south, as well as at El-Deir (Brones 2004; 2010) and 'Ain el-Dabashiya (Dunand *et al.* 2013) in the north. These studies are generally rather superficial in terms of their discussion of the Ptolemaic material, and generally only a small number of illustrations have been published.

Compared to Kharga and Dakhleh, published Ptolemaic pottery from the other oases is quite limited. Apart from photographs of a few potential Ptolemaic types published by Fakhry (1950: Pl. XXX–XXXI), the only Ptolemaic pottery from Bahariya to be illustrated in the published literature is that discovered by Hawass (2000) at the Valley of the Golden Mummies, and although photographs of this material are published (Hawass 2000: 79), very few details are provided. The situation is similar for Siwa. For instance, Fakhry (1944: 68, 74) reported finding Ptolemaic pottery at two sites in Siwa, whilst more recently Kuhlmann (2011: 9) noted the discovery of local imitations of Greek forms, as

well as 'finds of Bes-juglets, which are fairly common amongst the pottery at the Ammoneion' (Kuhlmann 2010a: 219); however, neither author provided further details concerning this material. The Ptolemaic pottery from Siwa was the subject of a conference paper recently presented by Barbara Böhm, although as yet nothing has been published on the topic.[2]

THE NILE VALLEY

One of the key difficulties that prevented Hope from successfully identifying Ptolemaic pottery in his early studies of pottery from Dakhleh was the lack of published comparative material from the Nile Valley. Thankfully, the situation has changed dramatically since then as Ptolemaic pottery has increasingly become the focus of detailed study and a great deal of this material has now been published. Excavations all throughout Egypt have yielded pottery of Ptolemaic date; however, the key sites for which assemblages have now been published are Abydos (Knoblauch and Bestock 2009), Alexandria (Enklaar 1998; Hayes 2002), Athribis (Poludnikiewicz 1992), Buto (Seton-Williams 1967; Ballet 2004), Dendera (Marchand 2000a), Elephantine (Aston 1999a), Karnak (Jacquet-Gordon 2012; Lauffray 1995; Masson 2011), Naukratis (Berlin 1997; 2001; Coulson 1996; Coulson and Leonard 1982), Tanis (Brissaud *et al.* 1987), Tebtynis (Marchand 1996; 2011), Tell el-Balamun (Spencer 1996; 1999; 2003) and Thebes (Schreiber 2003).[3] Of these, David Aston's (1999a) study of Late New Kingdom to Early Ptolemaic pottery from Elephantine is particularly valuable for the current study, as it represents one of the largest assemblages of Ptolemaic pottery that has been published to date, as well as one of the few assemblages to have derived from well-dated stratified contexts. Whilst a large assemblage of Ptolemaic pottery has also been published from Naukratis (Berlin 2001), the pottery from Dakhleh has much more in common with the Ptolemaic pottery tradition of Upper Egypt and thus Aston's study has remained the key source for comparative material. Gábor Schreiber's (2003) study of Late Dynastic and Ptolemaic painted pottery from the Theban region is also of great use to this study, particularly since there appears to be a close connection between the decoration encountered there and that found in Dakhleh (cf. Gill *Forthcoming c*).

Over the past two decades, scholars have begun to focus on more specific aspects of Ptolemaic pottery production. Perhaps the most common of these is the issue of local imitations of foreign pottery types, in particular the impact of Hellenistic pottery on the Egyptian pottery tradition (e.g. Ballet 2002; Elaigne 2000; Marchand 2002; Pierrat-Bonnefois 2002; Poludnikiewicz 1992). In relation to this, some scholars have focussed on the production of imitation black-polished wares (De Rodrigo 2003; Jacquet-Gordon 1997; most recently Gill 2012a). These studies are largely concerned with the origins of the Ptolemaic pottery tradition and focus almost exclusively on the influence of Hellenistic pottery, although the impact of the local Egyptian tradition has recently begun to receive more treatment (Marchand 2013; Masson 2011; Pierrat-Bonnefois 2002).

3.3 PRESENTATION OF THE MATERIAL

ARRANGEMENT

The corpus of Ptolemaic pottery form Dakhleh is arranged by context and is presented in two separate sections. The pottery from Mut al-Kharab is presented in APPENDIX 2 and is limited to that from key deposits, whilst pottery from disturbed or surface contexts has generally not been included apart from

[2] The paper was presented by Barbara Böhm at the conference, *Networks in the Hellenistic World: According to the Pottery in the Eastern Mediterranean and Beyond*, 23–26 February 2011, Cologne University.

[3] The Ptolemaic pottery from the Theban region was recently the subject of a major conference, *Theban Ceramics in Hellenistic Context* (CFEETK), 28–29 September 2014, Luxor. The proceedings are currently being prepared for publication.

a few exceptions (cf. CHAPTER 2). The pottery from all other Ptolemaic sites in the oasis is presented in APPENDIX 5 and comprises material derived from both test excavation and surface collection.

ILLUSTRATIONS

The majority of the pottery illustrations in APPENDIX 2 were drawn by the author, whilst the remainder are the work of Bruce Parr. The illustrations in APPENDIX 5 were drawn by various members of the project and many of these have been subsequently inked by the author. Some of the drawings have been 'cleaned up' and edited for the sake of consistency, although it is inevitable that the individual styles of the various illustrators are still evident to some degree.

All pottery drawings are produced at a scale of 1:4 unless otherwise indicated. Surface treatments, such as slips, polishing and burnishing, are not represented in the actual drawing, but are noted in the vessel description. Painted, incised and impressed decoration is depicted; however, in cases where the decoration cannot be seen clearly from one angle it is depicted 'rolled out' next to the vessel. It should be noted that many of the illustrations are based on complete profiles and reconstructed vessels rather than on complete vessels. Furthermore, illustrations are not always of the original vessels, rather representative drawings are frequently used. In such cases, this is indicated by two oblique strokes (//) after the drawing number. Often the representative drawing is more complete, which can imply a greater degree of preservation than is actually present in the original sherd. In order to avoid confusion, the degree of preservation is noted in the vessel description for those vessels where the drawing might be misleading. Colour photographs are included for a select number of vessels (cf. PLATES Sections B and E). These comprise representative examples of key forms, as well as examples of different types of surface treatment and decoration.

3.4 FABRICS AND WARES

THE DOP FABRIC SYSTEM

The fabric identifications utilised in this study are based on the DOP fabric system, which was originally developed by Colin Hope during the survey phase of the project. Each fabric type has been provided with an identification code according to this system (TABLE 3.1). The benefit of using this system is that it enables material recorded prior to the current study to be more easily incorporated, whilst also allowing comparisons to be made with previously published studies. The following discussion focuses only on those fabrics encountered during the Ptolemaic Period.

The oasis fabrics were originally divided by Hope (1979: 188) into two broad groups, iron-rich or ferruginous fabrics (A-group), and calcium-rich or marl-like fabrics (B-group), each with numerous sub-divisions. Petrographic analyses conducted by Eccleston (2000; 2006) have since improved our understanding of the relationship between the various fabric groups. Eccleston has further divided the ferruginous fabrics into four sub-categories, namely 'Coarse Ferruginous Fabrics', 'Mudstone/Claystone/Shale Fabrics', 'Mudstone/Claystone/Shale Fabrics – Vegetal Tempered Variant' and 'Mudstone/Claystone/Shale Fabrics – Sandstone Variant' (Eccleston 2006: 93). The first three groups are represented during the Ptolemaic Period and are incorporated into the discussion below.

PTOLEMAIC FABRICS

The fabrics used by the oasis potters during the Ptolemaic Period are for the most part similar to those used throughout other periods. The most common fabric is A1, whilst variants of this fabric are utilised in much smaller quantities. The most apparent change during the Ptolemaic Period is the

increased use of Fabric B3, which is predominantly encountered during the Ptolemaic and Early Roman periods and can be considered a diagnostic fabric of this time. The Ptolemaic fabrics are described in TABLE 3.1; the descriptions are based on the analyses of Eccleston (2000; 2006) and the unpublished notes of Hope, with additional observations made by the author.

In order to examine the relative frequency of different fabrics used during the Ptolemaic Period, an analysis of key contexts from Mut al-Kharab has been undertaken. Trench 22 has been selected for study as this offers both the largest amount of material and the most secure contexts. Contexts with twenty or more diagnostic sherds have been selected, in order to keep the results meaningful. So as to achieve an accurate representation of the number of vessels in each context, only diagnostic sherds and complete vessels have been recorded. These have been divided into fabric groups and counted, and the results compiled so that the relative proportion of different fabrics from Trench 22 can be established. TABLE 3.2 presents the results of this analysis. For comparative purposes the table also includes an analysis of Context 35 in Trench 20, which is considered to be a transitional Late Period/Early Ptolemaic context (mid to late 4th century BCE).

It is evident from the results presented in TABLE 3.2 that Fabrics A1 and A2 together comprise around 90% of the assemblage from Trench 22, whilst a similar proportion is evident within the Trench 20 assemblage. This is consistent with the results of analyses of Roman Period pottery from Ismant al-Kharab, where Fabrics A1/A2 are thought to have been used for around 80–90% of all pottery (Eccleston 2006: 95). Other fabrics are represented in Trench 22, but in much smaller quantities. The other prominent fabrics are A4 and B3 although they each constitute only a few percent of the assemblage respectively. If we compare Trenches 22 and 20, we see roughly a similar proportion of fabrics; the most noticeable difference is the larger proportion of Fabric B3 in Trench 22, and the larger proportion of Fabric A2 in Trench 20.

PTOLEMAIC WARES

Ptolemaic wares can be divided into three broad categories: uncoated or plain vessels, cream-slipped vessels and red-slipped vessels. Each of these types of surface treatment can receive further decoration in the form of painted designs, polish and burnish (cf. below). The term ‘slip’, as it used in this study, refers to a coating that has been applied prior to firing (following Aston 1998: 30–31; cf. also Schreiber 2003: 20), which appears to have been the case for all of the coated vessels in the corpus. The term ‘self-slip’ has not been used here (cf. Aston 1998: 31). Whilst wet-smoothed vessels are encountered in the corpus, this type of surface treatment is not always recognised easily, and I have chosen to place such vessels within the uncoated/plain category.

I have used the designations ‘black’, ‘red’ and ‘cream’ to identify slip and paint colours, with the occasional use of more specific terms such as ‘plum red’ and ‘black/brown’ to indicate more obvious variation in colour. Partly this is due to the incredible consistency in the colours used for decoration, which display only minimal variation across the corpus, and which contrast with the wide range of hues encountered for example in the Theban material (cf. Schreiber 2003: 20). It is also partly due to the fact that variation in colour is often the result of factors beyond the choice of the potter. For example, paint colour can appear different in various types of light; it can be affected by wear associated with vessel use; it can be affected by post-depositional processes, such as exposure to water, soil and salt; and it is subject to interpretation by the ceramicist. Therefore, providing a more specific colour designation for slips and painted decoration is impractical. Furthermore, since a large proportion of the pottery has not been consulted first hand, it is impossible to provide anything more than a broad identification for colour in many cases.

TABLE 3.1 Ptolemaic fabric descriptions

Coarse Ferruginous Fabrics	
A1	A medium-bodied, medium-textured fabric; although can be open-bodied and coarse-textured. Small and irregular voids. Macroscopically visibly inclusions include frequent sand, limestone and chaff in varying quantities, as well as infrequent clay pellets, platey shale and grog (Eccleston 2006: 95–97; PLATE B.57). This fabric is fired brown/orange through to grey/black. Zoning is common and usually comprises a brown/orange surface with a grey/black core (Hope 2000: 194). Examples that are fired grey/black throughout are designated A1b, whilst zoned firing patterns are designated A1a. This is the most common fabric used during the Ptolemaic Period, and indeed throughout all other periods (Hope 2000: 194). It is used for an extensive range of forms.
A2	A dense-bodied, fine-textured fabric; although can be medium-bodied and medium-textured. The fabric is basically the same as A1, with a similar range of macroscopically visible inclusions, although with a higher proportion of finer inclusions. In general, A2 is differentiated from A1 by a finer groundmass (Eccleston 2006: 95–97; PLATE B.58). Like A1, this fabric is fired brown/orange through to grey/black. Zoning is less common but can occur. Examples fired grey/black are designated A2b, whilst zoned firing patterns are designated A2a. Compared to A1, this fabric is used for a more limited range of forms. It is most frequently used for short-necked jars (Forms 59 and 61), as well as flasks and kegs (Forms 90–98). It is also occasionally used for other forms (Forms 15, 27, 29–33, 37, 69–70, 87–88).
A5	A medium-bodied, coarse-textured fabric. Macroscopically visible inclusions include large amounts of quartz, and less frequent clay pellets and limestone. It appears to be a quartz/sand-rich variant of A1 (Eccleston 2006: 99–100; PLATE B.59).[4] This fabric is usually fired red/brown with no clear zoning. Fabric A5 is mostly used for large jars (Forms 59, 61, 63–66), and is occasionally used for various other forms (Forms 11, 26, 30, 67).
A28	A medium to open-bodied, medium to coarse-textured fabric. Macroscopically visible inclusions include sand and limestone, and less frequently clay pellets. It is a limestone-rich variant of A1/A2, which has been low-fired (Eccleston 2006: 98–99; PLATE B.60). This fabric is fired mid-brown with no clear zoning. Fabric A28 occurs infrequently within the corpus and the range of forms is relatively limited (Forms 1, 22, 29–30, 69). Generally, only isolated examples of each form occur.
A29	A variant of A1/A2, which has been fired to a higher temperature to create a much harder fabric (Eccleston 2000: 212–214; 2006: 97–98; Hope 2000: 194). It is found in large quantities at the site of 'Ain al-Azizi (Site 43), and is thus also known as 'Ain al-Azizi Ware' (Hope 2000: 192). This fabric is fired red-orange through to grey. It is a dense-bodied fabric and due to the higher firing temperature, the surface is usually shiny, with a hard/plastic quality to the fabric and a metallic sound when tapped. Fabric A29 was used primarily during the Late Period, usually for flasks and tall-necked kegs (Hope 2000: 194), and occurs much less-frequently during the Ptolemaic Period. It is encountered rarely within the corpus, and only for short-necked jars (Forms 59 and 61).

[4] The identification of A5 as a separate fabric was questioned by Eccleston (2006: 99). His description is based on a single unprovenanced sherd in the DOP fabric type collection, as at the time no other examples were known to him; however, since then, several additional examples from Mut al-Kharab have been identified by the author.

A31	This fabric is a variant of A1 and displays a similar groundmass and range of inclusions. It is differentiated from A1 by the more frequent occurrence of visible limestone inclusions. Fabric A31 is used for a wide range of forms (Forms 1–2, 17, 29–30, 34, 38, 56, 59, 63–66), but only a few examples of each occur.
A32	This fabric is a variant of A1 and displays a similar groundmass and range of inclusions. Like A31, it is differentiated from A1 by the more frequent occurrence of visible limestone inclusions, but is further differentiated by additional visible sand. Fabric A32 is relatively rare within the corpus with only three vessels made in this fabric, all of which are fragmentary. These are Numbers **423**, **490** and **986** (Form 65).
Mudstone/Claystone/Shale Fabrics	
B3	A medium-bodied, coarse-textured fabric. Macroscopically visible inclusions include frequent shale, as well as some clay pellets and sand (Eccleston 2000: 214–216; 2006: 104–106; Hope 2000: 195; PLATE B.61). This fabric was previously designated B3b, but has been shown to be unrelated to B3a, and thus should now be referred to as B3 (Eccleston 2006:106). It is not related to other 'B' fabrics. This fabric is usually fired orange/pink, but can also appear more yellow or brown. Vessels made in this fabric usually comprise a black/grey exterior surface, although this appears to be a result of use rather than firing (cf. PLATES B.11 and B.36). The most common forms made in this fabric are cooking pots (Forms 47–49) and jars (Form 67), and occasionally small bowls (Form 11) and kegs (Forms 97–98). This fabric has previously been termed 'Roman shale' as it was thought to only occur during the Early Roman Period (Eccleston 2006: 104; Hope 1999: 232); however, it has now become clear that this fabric was also regularly used during the Ptolemaic Period. It might have also been used occasionally for kegs during the Late Period (Hope 2000: 195).
Mudstone/Claystone/Shale Fabrics – Vegetal Tempered Variant	
A4	A medium to open-bodied, coarse-textured fabric. It is characterised by the presence of many long planar voids, which are the result of straw and other vegetal material being burnt away during firing (PLATE B.62). Macroscopically visible inclusions include sand, limestone, clay pellets, and in the occasional low-fired example it is possible to detect the remains of straw (Eccleston 2006: 112–114). This fabric is fired brown through to grey/black. It is usually zoned with a dark grey/black core, which is apparently caused by the burning out of the vegetal temper (Eccleston 2006: 113). This fabric is almost exclusively used for large basins and troughs, usually with very thick walls (Form 99). It is occasionally used for other miscellaneous forms (Form 101).
Coarse Quartz Marl Fabrics	
B1/B10/B15	An open-bodied, coarse textured fabric, with many small rounded voids. Macroscopically visible inclusions include fine quartz, as well as rare fine clay pellets and fine shale (Eccleston 2006: 120; PLATES B.63 and B.64). Originally, fabrics B1/B10/B15 were distinguished on the basis of coarseness, although the line between them was often blurred. Subsequently, Colin Hope has merged these fabrics into a single group, as they all represent the same basic paste. This fabric is usually fired cream to grey/green (PLATE B.63), although pink is sometimes encountered (PLATE B.64). It is occasionally zoned, with cream interior and exterior surfaces and a grey/green or pink core. It generally has a soft, chalky consistency and is usually quite brittle. Fabric B1/B10/B15 is encountered infrequently within the corpus. It appears to have been

	more common during the Late Period and was used only in small quantities during the Ptolemaic Period.[5] The forms made in this fabric are mostly small bowls (Forms 1, 11, 17–18) and short-necked jars (Forms 56 and 59). Complete forms in this fabric are rare as the preservation is usually quite poor due to the fragility of the fabric.
Imports[6]	
Nile Silt	Nile Silt fabrics are encountered in small numbers within the corpus, but where they do occur they are often quite recognisable.[7] These vessels are typically fired a dark 'chocolate' brown and stand in contrast to the typical oasis fabrics, which are never fired that colour. The Nile Silt imports in the corpus also display a finer groundmass than many of the oasis fabrics, with minimal macroscopically visible inclusions. The presence of mica is a clear indicator that these fabrics are imports, as mica does not occur naturally in the oasis. The Nile Silt vessels included in the corpus appear to be equivalent to Nile B fabrics in the Vienna System (cf. Nordström and Bourriau 1993: 171–173). The majority of the Nile Silt vessels are poorly preserved, although a range of forms are attested (Numbers **281**; **344**; **506**; **760**; **768**; **773**).
Greek	Greek imports are recognisable due to their extremely fine groundmass, which typically has very few or none macroscopically visible inclusions. The fabric ranges in colour from pale orange through to cream, and many examples have a highly polished black or red surface (PLATE B.3). The exact origins of these imports are unknown; however, they clearly belong to the broader 'Greek' tradition and are therefore tentatively identified as Greek imports. A small number of Greek imports have been found at Mut al-Kharab, although most of these are either isolated finds or they derive from contexts of mixed date. Only one sherd is included within the corpus and this is the rim from a small incurved bowl (Number **51**).

TABLE 3.2 Comparison of fabrics in Trenches 22 and 20.

Fabric	Trench 22 (No. of sherds)	%	Trench 20 (No. of sherds)	%
A1	479	87.7	156	81.3
A2	14	2.6	21	10.9
A4	13	2.4	3	1.6
A5	10	2.1	3	1.6
A31	1	0.2	3	1.6
B1/B10/B15	2	0.4	1	0.5
B3	22	4.0	2	1.0
Import	5	1.0	3	1.6
TOTAL	546		192	

[5] In his discussion of Ptolemaic Period pottery from Dakhleh, Hope (1999: 230) described a series of vessels in Fabric B1/B10/B15, which were found at two temple sites in the oasis, 'Ain el-Azizi (Site 43) and 32/405-A2-1. These included small and medium bowls, spouted bowls, short-necked jars and 'double-gourds', and were thought at the time to be of Ptolemaic date. It is now clear that these vessels should be dated to the Late Period.

[6] In addition to the imports described here, a very small number of unidentified imports were encountered within Ptolemaic contexts at Mut al-Kharab. All of these are body-sherds and are thus not illustrated within the corpus, and all appear to derive from large jars or amphorae. These imports have not yet been identified, although they are clearly not of oasis origin, nor are they of Nile Valley origin.

[7] Marl fabrics of Nile Valley origin have so far not been detected within Ptolemaic contexts in the oasis.

TABLE 3.3 Comparison of wares in Trenches 22 and 20.

Ware	Trench 22 (No. of sherds)	%	Trench 20 (No. of sherds)	%
Plain (uncoated)	264	48.2	124	64.25
Decorated plain	1	0.2	13	6.74
Cream-slipped	207	37.8	33	17.10
Decorated cream-slipped	46	8.4	17	8.81
Red-slipped	18	3.3	3	1.55
Red-slipped polished	1	0.2	0	-
Red-slipped burnished	2	0.4	0	-
Decorated red-slipped	0	-	3	1.55
Mixed slip	6	1.1	0	-
Decorated mixed slip	1	0.2	0	-
Polished	2	0.4	0	-
TOTAL	548		193	

The fabrics used by potters during the Ptolemaic Period are largely the same as those used in earlier periods, with the exception of Fabric B3; in contrast, Ptolemaic wares exhibit a marked change from the preceding period. For example, ceramics dating to Dynasty XXVII from Mut al-Kharab rarely exhibit painted decoration (cf. Hope 2004a: Figs 14–17), whilst pottery dating to the 4th century BCE is sometimes decorated with simple linear designs and occasionally geometric and floral motifs, as is demonstrated by the material from Trench 20 (cf. CHAPTER 2). In the Early Ptolemaic Period, painted decoration occurs more frequently and generally comprises more elaborate designs, which incorporate abstract geometric and floral motifs. These designs appear to have been inspired by the 'Lotus-flower and crosslined-band' style, which is encountered in Upper Egypt (Schreiber 2003: 43ff), and in particular Floral Style A (Schreiber 2003: 46ff; cf. below); however, beyond a superficial similarity, there are few direct parallels between the oasis decoration and that from the Nile Valley, and it is possible to recognise a distinct 'Dakhleh Style' (Gill *Forthcoming c*).

A comparison of the relative proportion of wares in Trenches 22 and 20 has been conducted following a similar process to that conducted for the fabrics (cf. above). The results demonstrate that there is a higher proportion of cream-slipped vessels in Trench 22 compared to Trench 20 (TABLE 3.3). The popularity of cream-slipped vessels during the Ptolemaic Period contrasts with earlier periods, particularly the Late Period, during which time this surface treatment is encountered relatively infrequently. Conversely, plain vessels appear to be more popular during the Late Period, and there is also a larger proportion of such vessels in Trench 20 compared to Trench 22. Polished and burnished vessels also appear to become more common during the Ptolemaic Period.

3.5 DECORATION

PAINTED DECORATION

One of the more diagnostic features of the Ptolemaic pottery tradition, both in the oasis and in the Nile Valley, is the presence of painted decoration (cf. Gill *Forthcoming c*; Schreiber 2003; 2009: 138; contra. Berlin 2013: 230). Already during the 4th century BCE there is an increase in painted decoration on pottery, mostly comprising simple linear designs, but during the Early Ptolemaic Period we see the introduction of more elaborate decoration comprising complex geometric and floral motifs, influenced it seems by Hellenistic pottery (Schreiber 2003: 11). Whilst Ptolemaic painted decoration might have been partly influenced by foreign styles, the designs themselves appear to have developed locally. There are broad similarities between the decorative styles encountered in the Ptolemaic pottery

from Dakhleh and that from the Nile Valley, but regional differences can be identified. The oasis pottery decoration is closely related to that encountered in Upper Egypt, particularly the Theban region (cf. Schreiber 2003; 2009); however, some of the designs are unique to Dakhleh and point to the existence of a local decorative style (Gill *Forthcoming c*).

The painted decoration ranges from simple linear designs through to more elaborate geometric and floral motifs. The slips encountered within the corpus are variations on either cream or red, whilst the designs themselves are usually painted in black, and less frequently red or cream. By far the most common combination of colours in the corpus is black and red decoration on a cream slip (e.g. PLATES B.9, B.12, B.38–B.40, B.52–B.53, B.55–B.56). Less frequently, decoration is painted over a red slip or uncoated surface. The painted designs encountered in the corpus are divided into four broad categories: linear designs, geometric designs, floral designs and figurative designs. The fact that there is a great deal of consistency in the style and execution of the painted decoration included in the corpus, suggests that many of these vessels could be the product of a single production centre.

Linear Designs

Linear designs are a common feature of Ptolemaic pottery. Simple linear decoration began to appear already during the Late Period, particularly during the 4th century BCE, in both the Nile Valley (cf. Aston 1999a: Pl. 83, Nos 2263–2267) and in Dakhleh (cf. Hope 2003a: Figs 11j and q), and usually comprises simple black bands on an uncoated background. By the 3rd century, black and red bands became increasingly common, and were usually painted on a cream-slipped background (Schreiber 2003: 36). Various types of linear designs are encountered in the corpus, including wide bands (FIGURE 3.1.a), narrow lines (FIGURE 3.1.b), bands bordered by lines (FIGURE 3.1.c), and combinations of different colours, such as red and black (FIGURE 3.1.d).

Linear designs are used independently to decorate certain vessel forms, most frequently large necked-jars (Forms 63–66; FIGURE 3.2.a; PLATE B.26), squat jars (Forms 51–52; FIGURE 3.2.b; PLATE E.36), carinated bowls (Forms 12 and 36–41; FIGURE 3.2.c; PLATE B.13) and deep bowls (Forms 45–46). They are almost always located on the exterior of vessels, with the exception of a shallow carinated bowl (Number **233**) that has narrow black bands on both the exterior and interior. Elsewhere, linear designs are used to frame decorative friezes comprising floral and geometric motifs (FIGURES 3.4.a; 3.6.a and c). For the most part, the style of this linear decoration is similar to that encountered in Upper Egypt, particularly the Theban region (cf. Schreiber 2003: 36–37); however, the cross-lined band that is a common feature of Nile Valley pottery (Schreiber 2003: 36; Pl. 11, Nos 133–137) has so far not been encountered in Dakhleh. Whilst a net-pattern does feature amongst the decorated pottery in the Dakhleh corpus, it is usually in the form of a series of cross-hatched sections separated by areas of red, which are exclusively found on the shoulder of large jars (FIGURE 3.4.a). Two fragmentary decorated sherds appear to include narrow bands of cross-hatching (Numbers **220** and **1195**); however, in both cases these are positioned on the shoulder of the vessel as the upper border of a decorative frieze, rather than as a wide band on the middle-body of the vessel as is usually the case in the Nile Valley. Interestingly, cross-lined band decoration is in fact encountered in Kharga (e.g. Marchand 2007: Fig. 41), which raises the question of why such a common feature of Ptolemaic painted decoration was not similarly utilised by the Dakhleh potters.

A relatively common type of linear design in the Dakhleh corpus is the rim-band, which is usually painted in red and less frequently in black. Such bands usually coat both the inside and outside of the rim and can be quite irregular, sometimes with drips where the excess paint has run, as if the potter has applied the paint quickly and without care (e.g. Numbers **135**, **251**, **475**, **1021**, **1056** and **1229**). Rim-bands are found on a range of vessel forms, but predominantly on large necked-jars (Forms 63–66) and bowls with modelled rims and ring-bases (Forms 29–32).

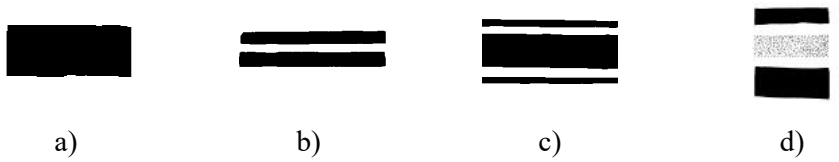


FIGURE 3.1 Types of painted linear designs encountered within the corpus.

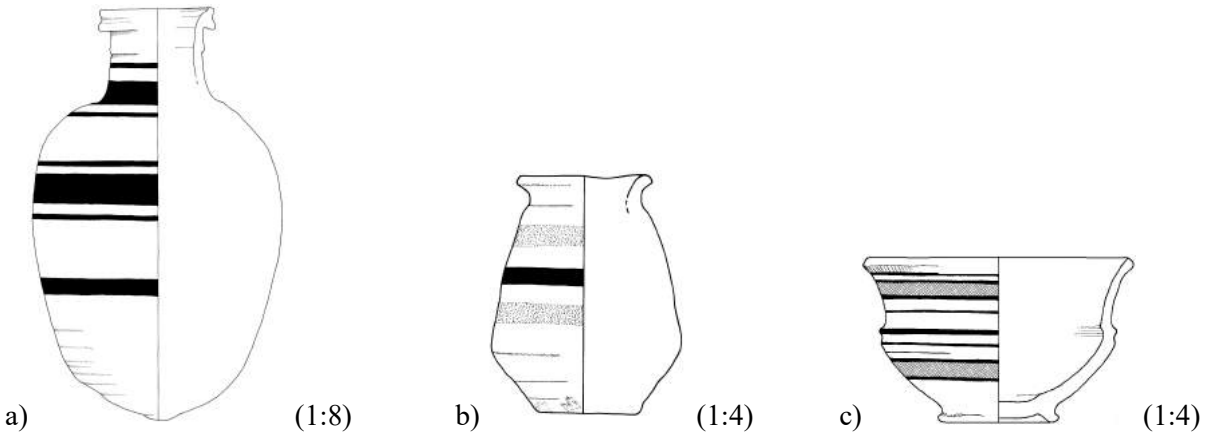


FIGURE 3.2 Examples of vessels with painted linear designs, a) black on cream slip; b–c) black and red on cream slip; a) Number 313; b) Number 1156; c) Number 201.

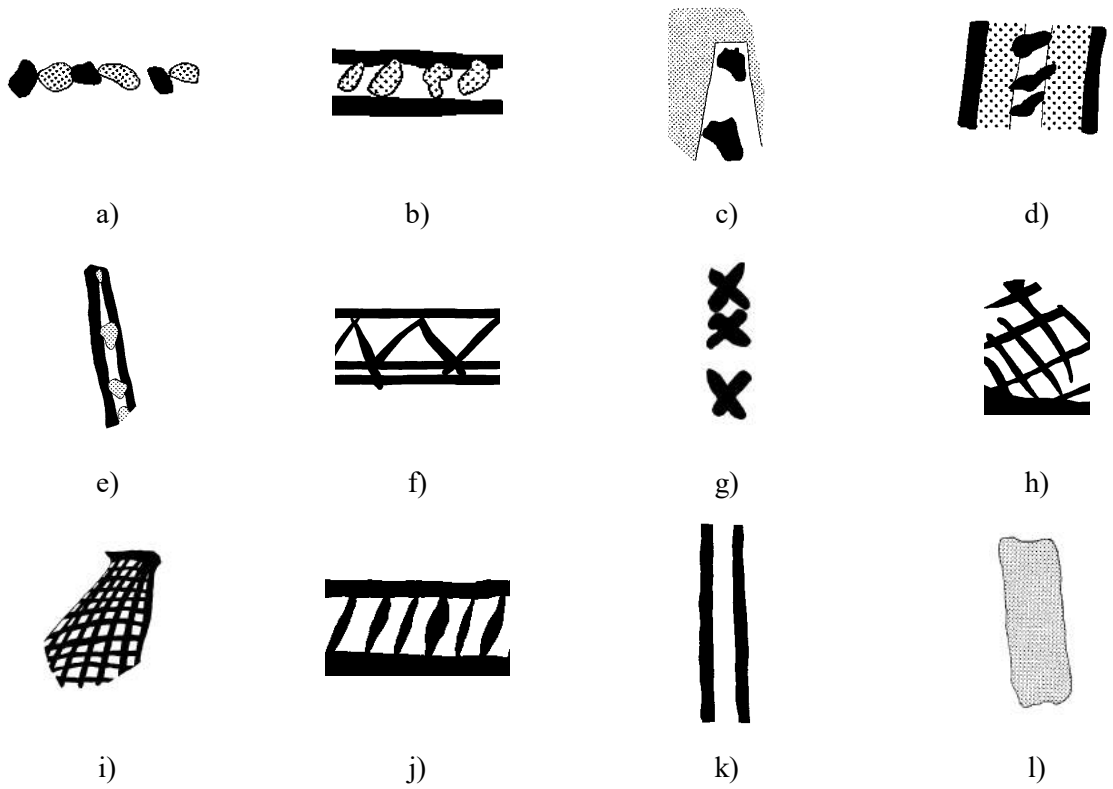


FIGURE 3.3 Types of painted geometric designs encountered within the corpus.

Geometric Designs

A wide range of geometric motifs is encountered within the corpus. These include irregular dots (FIGURE 3.3.a–e), zigzags (FIGURE 3.3.f), vertical lines (FIGURE 3.3.d–e, j–k), crosses (FIGURE 3.3.g), cross-hatching (FIGURE 3.3.h–i), and rectangular panels (FIGURE 3.3.d, l). Dots are often combined with other geometric motifs, such as horizontal bands (FIGURE 3.3.b) or vertical lines (FIGURE 3.3.d–e), and are regularly used as highlights for floral designs (FIGURES 3.5.j; 3.6.a; Number **220**). 'Rim ticks' occur infrequently, usually on carinated bowls (Forms 36–41), and comprise irregular dots or short lines spaced evenly around the rim (FIGURES 3.4.b–c; 3.8.a). Rim ticks become increasingly common throughout the Roman Period, when they are used to decorate a range of small bowls and jars (cf. Patten 1999: Fig 2.13–14).

Geometric designs are restricted to a select range of forms (FIGURE 3.4.a–c); these include large necked jars with modelled rims (Forms 63–66; FIGURE 3.4.a; PLATE E.43), carinated bowls (Forms 36–41; FIGURE 3.4.c; PLATE B.12), and deep bowls with modelled rims (Forms 34, 45–46), as well as a few other vessels (Forms 42, 78 and 79; FIGURES 3.4.b; 3.7.b; PLATE B.9). The decoration is usually restricted to the upper part of the vessel; for example, on the neck and shoulder for jars (FIGURE 3.4.a), and between the rim and carination for carinated bowls (FIGURE 3.4.c). These designs are regularly bordered above and below by linear bands and are often repeated, usually alternating with other designs, to form a decorative frieze (FIGURE 3.4). Rows of dots are frequently encountered (FIGURES 3.3.a–b; 3.4.b-c; 3.8.a; Number **783**), as are zigzag designs (FIGURES 3.3.f; 3.7.b; Numbers **112**; **167**; **220**; **752**). Red panels, roughly rectangular in shape, are frequently used as an alternating design between more detailed geometric and floral designs in black (FIGURES 3.3.l; 3.4.a; 3.6.a; Numbers **781**–**782**; **1078**; **1195**–**1200**; **1223**); these red panels vary in shape depending on the context, and can appear rounder or more elongated, often bordered by a thin black line (Numbers **55**; **314**; **530**; **531**). One of the most common geometric designs encountered within the corpus is the cross-hatch or net design (FIGURE 3.3.h–i). This is usually found on large jars with modelled rims (Forms 63–66), and is almost always painted black over a cream slip (Numbers **831**; **1184**), usually alternating with red panels (FIGURE 3.4.a; Numbers **531**; **1198**–**1200**), and sometimes also with floral designs (Number **782**).

Floral Designs

A diverse range of floral motifs is encountered within the corpus and include individual flowers or leaves (FIGURE 3.5.a–c), branches (FIGURE 3.5.d), vines (FIGURE 3.5.e–i), bunches of flowers/grass (FIGURE 3.5.j), tendrils (FIGURE 3.5.k) and what might be interpreted as a palm trunk (FIGURE 3.5.l). Some of these can be equated with Egyptian plant species, such as the palm (FIGURE 3.5.d) and the lotus (FIGURE 3.5.a); however, given how stylised many of the motifs are it is often difficult to identify a specific species (cf. Schreiber 2003: 38–42). The floral designs are predominantly painted in black, although red highlights are sometimes added (FIGURE 3.5.j; Number **220**). The use of red for part of the floral motif is encountered in the Nile Valley, such as at Tebtynis (Marchand 2002: Fig. 14), although interestingly it doesn't occur at Thebes (Schreiber 2003: 22–23). At the latter site floral motifs are invariably painted in black, whilst red is only used for wide bands. Floral designs are restricted to a limited number of forms (FIGURE 3.6.a–c), specifically large jars with modelled rims (Forms 62–66; FIGURE 3.6.a), carinated bowls (Form 12; FIGURE 3.6.b), deep bowls with modelled rims (Forms 45–46; Numbers **766**; **1146**), and Bes-vessels (Form 79; Numbers **167**; **756**; **774**), as well as a unique spouted vessel (Form 88; FIGURE 3.6.c). Schreiber (2003: 38) has pointed out the religious symbolism of many of the floral motifs encountered amongst the painted Ptolemaic pottery from Thebes, and it is likely that the choice of floral motifs was dictated by similar reasons in Dakhleh. Furthermore, the presence of vine motifs on large storage jars suggests a possible functional connection between the choice of motif and the nature of the stored goods (cf. Gill *Forthcoming c*).

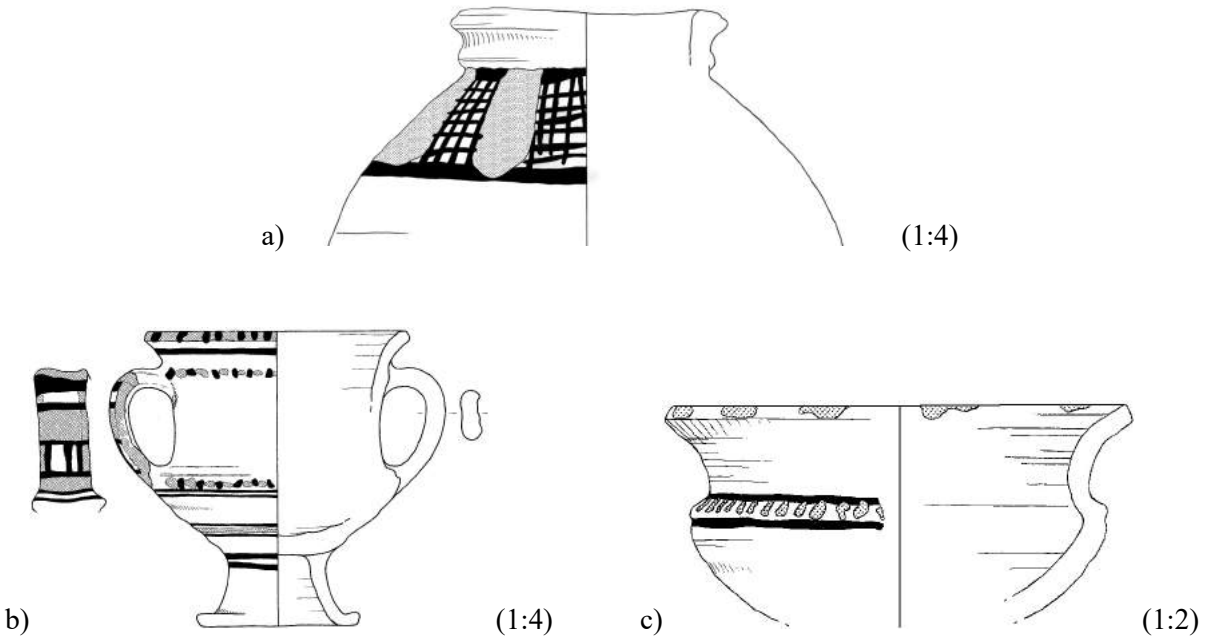


FIGURE 3.4 Examples of vessels with painted geometric designs, a–c) black and red on cream slip; a) Number 1270; b) Number 149; c) Number 195.

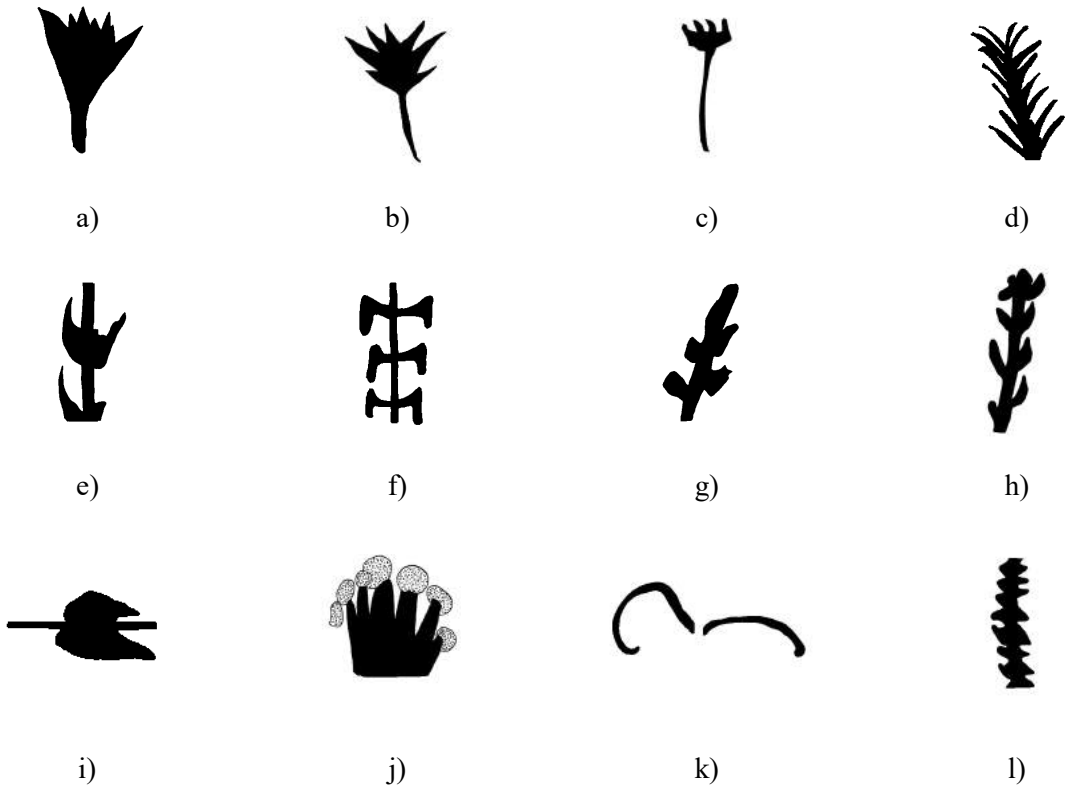


FIGURE 3.5 Types of floral design elements encountered within the corpus.

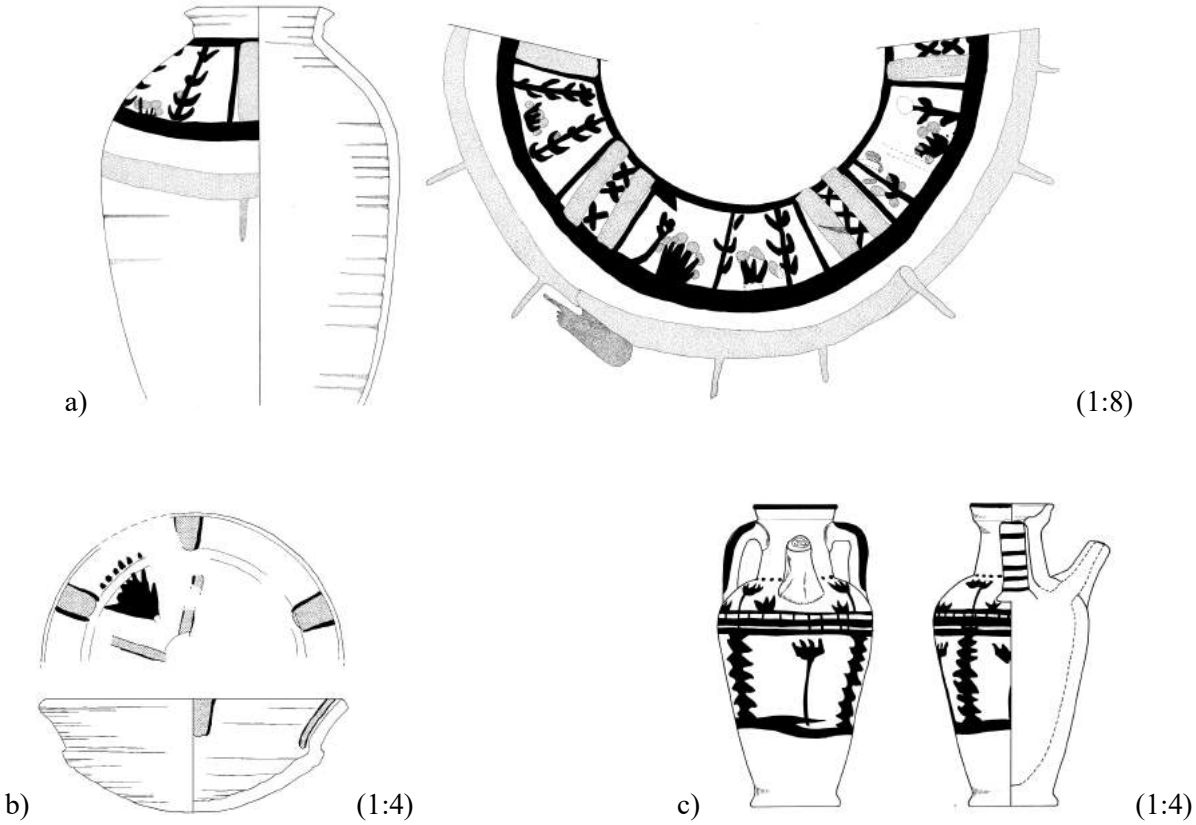


FIGURE 3.6 Examples of vessels with painted floral designs, a–b) black and red on cream slip, c) black on uncoated; a) Number 1078; b) Number 55; c) Number 927.

The floral designs encountered in Dakhleh are for the most part comparable to those encountered in the Nile Valley, for example at Elephantine (Aston 1999a: Pl. 95, No. 2530; Pl. 110, No. 2913), at Thebes (Schreiber 2003: Pl. 3, Nos 40–41; Pl. 7, No. 96; Pl. 11, Nos 133–137; Pl. 15, No. 207; Pl. 17, Nos 222–223), and at Athribis (Poludnikiewicz 1992: Nos 7–8). Similar designs are also encountered on Ptolemaic vessels from Kharga Oasis, at El-Deir (Brones 2010: Fig. 272) and at 'Ain Manawir and Dush (Wuttmann *et al.* 1998: Fig. 68b; Marchand 2007: Figs 38, 40–41). Despite these broad similarities, specific parallels for many of the motifs are difficult to find. This demonstrates that although the Dakhleh workshop followed the general trends of the Nile Valley, it clearly developed its own local repertoire of motifs (Gill *Forthcoming c*).

Figurative Designs

The figurative motifs that are characteristic of the Greek pottery tradition are not encountered in Dakhleh. Whilst such motifs are occasionally found on Ptolemaic pottery, particularly in the north of Egypt (cf. Bailey 2011: Pl. 15; Poludnikiewicz 1992: No. 12), for the most part, Ptolemaic painted decoration in the oasis is restricted to geometric and floral motifs. The closest that the oasis potters come to a figurative design is the Bes-vessel (Forms 79–80). These vessels combine painted, modelled and applied anthropoid elements with painted geometric and floral motifs to create an image, which may be identified as that of the god Bes or a similar god (FIGURE 3.7.a–b; PLATES B.37 and B.50).[8]

[8] Although this image is usually identified with the god Bes in the published literature, the image appears to have been associated with a range of similar dwarf-gods; cf. Kaiser (2003: 7–16). For a discussion of Bes-vessels from Mut al-Kharab, see Gill (*Forthcoming a*).

The facial features are generally modelled and/or incised and are often highlighted with red and black paint. The figurative designs encountered within the corpus include eyes, a mouth with a projecting tongue, stylised arms and a stylised feathered headdress. In some cases, these elements are detailed and refined, and quite understated (FIGURE 3.7.a), whilst in others they are bold and more stylised, often combined with geometric and floral designs (FIGURE 3.7.b).

APPLIED/MODELLED DECORATION

Three-dimensional decoration in the form of applied and modelled clay is rare within the corpus. The most distinctive examples are Bes-vessels (Forms 79 and 80), which comprise three-dimensional facial features, such as eyes, nose and ears, as well as arms (FIGURE 3.7.a–b; Numbers **16**; **436**; **487**; **756**; **774**; **1002**). Three additional examples of applied/modelled decoration occur. One of these is a carinated bowl with a garland design around the lower body (FIGURE 3.8.a; PLATE B.7). Three-dimensional decoration is not encountered on any other carinated bowls within the corpus; however, it is a feature of silver vessels of Achaemenid origin from which these ceramic examples derive (cf. Pfrommer 1996: Fig. 5). The other examples include a fragmentary handled-vessel with an applied feature attached to the top of the handle (FIGURE 3.8.b; PLATE B.47), and a necked-jar also with an applied feature on the handle (Number **852**). Similar applied features are regularly found on Classical Greek forms, such as *kantharoi* (cf. Sparkes and Talcott 1970: Fig. 7, Nos 719–721).

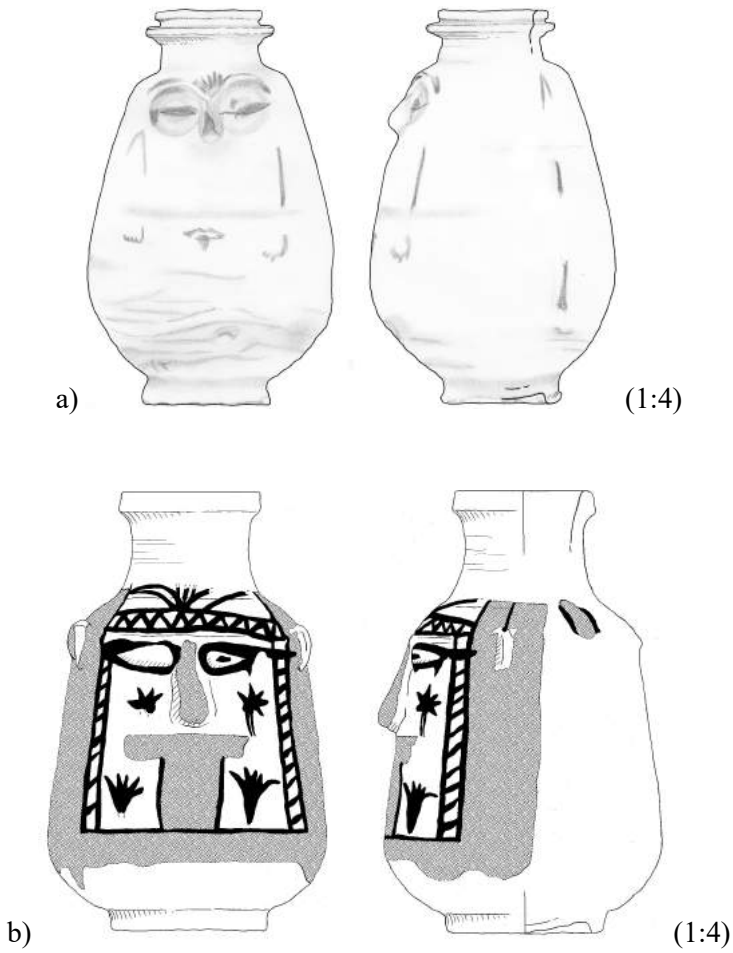
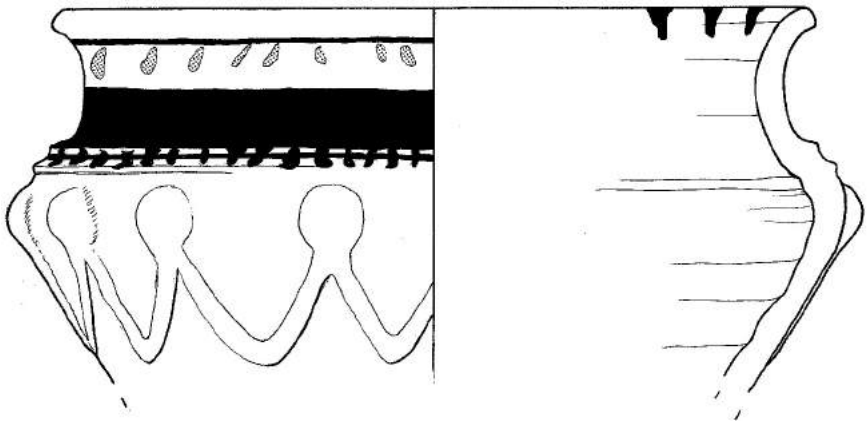
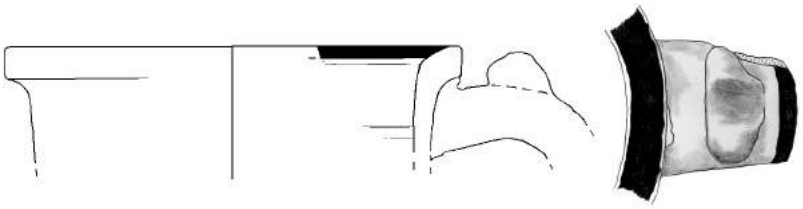


FIGURE 3.7 Examples of vessels with painted anthropoid designs, a) faint black on cream slip, b) black and red on cream slip; a) Number 436; b) Number 774.

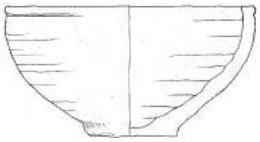


a) (1:2)



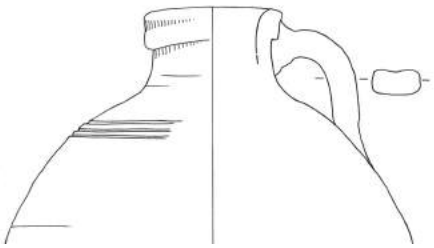
b) (1:2)

FIGURE 3.8 Examples of vessels with applied/modelled decoration; a) Number 60; b) Number 762.



a) (1:4)

b) (1:4)



c) (1:4)

FIGURE 3.9 Examples of vessels with incised decoration; a) Number 53; b) Number 182; c) Number 1271.

INCISED DECORATION

Incised decoration is encountered regularly within the corpus, although it is mostly limited to simple horizontal lines. Generally, these occur on the rim, neck and shoulder of vessels. The most common forms to be decorated in this way are small, flat-based bowls, which have an incised line on the exterior directly below the rim (FIGURE 3.9.a; Form 24b). Other examples include neckless jars with two incised lines below the rim (FIGURE 3.9.b; Number **182**); a large handled-jar with three parallel incised lines on the shoulder (FIGURE 3.9.c; Form 71); a small carinated bowl with an incised line

midway on the exterior (Number **232**; Form 16); and small round-based bowls with an incised line below the rim (Number **1037**; Form 20).

Incised decoration is also encountered on some Bes-vessels (Numbers **436**; **487**), although it is much less common than modelled and painted decoration. It occurs in conjunction with these other forms of decoration, and is used to define features such as the arms or eyes of the Bes-image. This contrasts with Late Period Bes-vessels for which the decoration is almost entirely incised (e.g. Hope 2004a: Fig. 14c; cf. Gill *Forthcoming a*).

POLISHED/BURNISHED DECORATION

This type of decoration also occurs infrequently, although where it does occur it is usually poorly preserved, probably due to surface wear resulting from use in antiquity. This suggests that it may have actually been more common than is currently evident within the corpus. Polishing and burnishing are mostly encountered on red-slipped vessels, as well as on the small number of black-ware vessels; however, polished or burnished cream-slipped vessels are extremely rare within the corpus, with only two examples included (Numbers **961** and **964**). Perhaps this is a reflection of the kinds of vessel that the local potters were attempting to imitate, such as the red- and black-polished wares of Greek origin. In fact, many of the polished/burnished vessels in the corpus are imports, either from the Nile Valley (Numbers **281**; **760**; **768**; **773**) or further abroad (Number **51**); in contrast, only a few are local products (Numbers **761**; **772**; **780**; FIGURE 3.10.a; PLATE B.46).

IMPRESSED DECORATION

Impressed decoration is very rare within the corpus. There are two examples of body sherds, probably from large jars or amphorae, which are decorated with horizontal bands of rope impressions (Numbers **166** and **532**; FIGURE 3.10.b). Whilst this might have been intended as deliberate decoration on behalf of the potter, such rope impressions are probably due to the manufacturing process, as ropes would be used to support the walls of very large vessels before firing. The two sherds with this decoration come from different trenches; however, they are almost identical and may have originally belonged to the same vessel.

A further example of impressed decoration can be seen in the shallow plate of polished black ware, which has an impressed roulette design on the interior (Number **761**; FIGURE 3.10.a; PLATE B.46). Whilst this type of decoration is common for similar vessels of Greek origin (Vogeikoff-Brogan 2000: Fig. 3, Nos 5–6), as well as their Egyptian imitations (Marchand 2000a: No. 91; Seton-Williams 1967: Fig. 2, Nos 10–11; Spencer 1996: Pl. 51.12), it is encountered only once in the Dakhleh corpus.

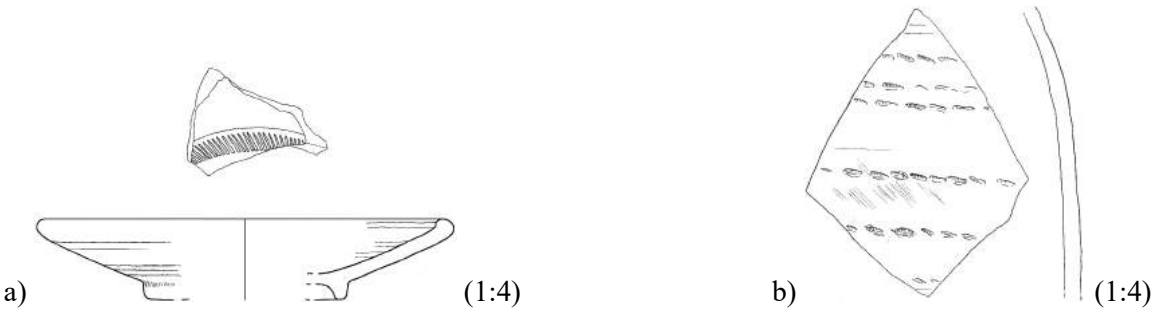


FIGURE 3.10 Examples of vessels with impressed decoration; a) Number 761; b) Number 166.

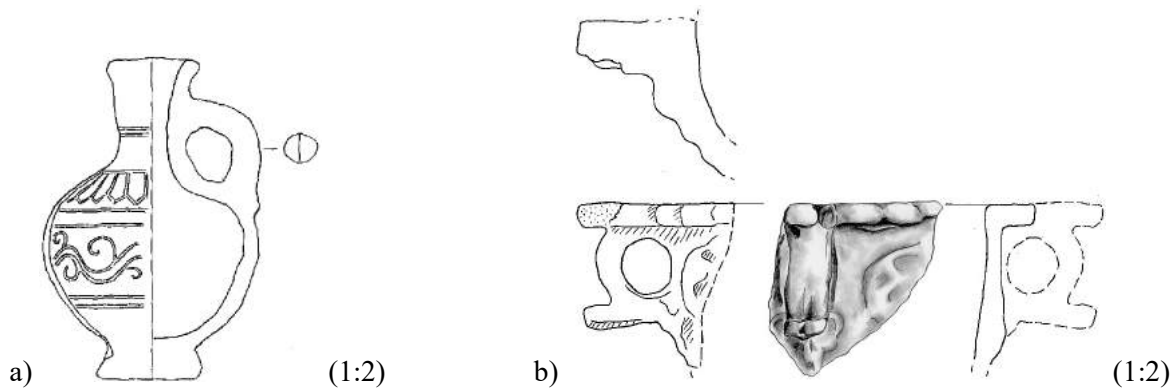


FIGURE 3.11 Examples of mould-made vessels; a) Number 773; b) Mut al-Kharab, Trench 35 (40).

3.6 MANUFACTURING TECHNIQUES

The majority of vessels in the corpus are wheel-made, in one or more sections, although many have additional features that are hand-made, such as handles and spouts. The result is that most vessel bodies are regular in form, whilst handles and spouts are often quite irregular and also differ greatly between vessels. This is perhaps best illustrated by the range of horizontal loop handles encountered on Forms 47a–d. Entirely hand-made vessels are encountered infrequently, and are essentially limited to small shallow bowls (Form 2) and large basins (Form 99). Mould-made vessels are extremely rare; a unique example is the small handled-jug, recovered from the southern baulk in Trench 15 (Number **773**; FIGURE 3.11.a; PLATE B.49). This vessel was made in two halves, in two separate moulds, which were joined together with wet clay before firing. It appears to be an import, possibly from the Nile Valley, and since it is the only example of a mould-made vessel in the corpus, it seems that this manufacturing technique was not utilised by the oasis potters during the Ptolemaic Period.

An additional example should be mentioned here; this is a fragment of a mould-made bowl with a vertical loop handle, decorated with a possible floral-motif in relief (FIGURE 3.11.b). This sherd was discovered in Trench 35 at Mut al-Kharab, and comes from a deposit containing Ptolemaic and Roman pottery (Context 40). Similar examples to this vessel have been found elsewhere in Dakhleh, which are decorated with a vine-motif, and which appear to be imitations of silver prototypes of Knidian origin (Hope 1999: 232). Two examples of this type of vessel come from Site 06 (33/390-F10-1) and are published in Hope (1999: 232, Pl. 14.29), whilst another example was found on the surface of Dayr al-Haggar (Site 07) and is published by Patten (1999: 88, Fig. 2.28). It is unclear whether this type of vessel should be dated to the Late Ptolemaic or Early Roman Period as the examples from Sites 06 and 07 were surface finds, whilst the example from Mut al-Kharab was found in a potentially disturbed context. They have not been included in the pottery corpus, but are mentioned here for the sake of completeness. These vessels have been tentatively dated between the 1st century BCE or 1st century CE (Hope 1999: 235), although since none were recovered from securely dated contexts it is not possible to propose a more refined date.

3.7 FORMS

In the following section I present an analysis of the major forms encountered in the corpus. The emphasis is on forms that are encountered frequently within Ptolemaic contexts in the oasis, but rare forms are also included if they derive from well-dated Ptolemaic contexts or are comparable to Ptolemaic forms found in the Nile Valley. I have attempted to include mostly complete or well-preserved forms; however, fragmentary forms are included if they are particularly common or unique.

In order to provide a formal basis for the classification of pottery forms, I have used a basic mathematical system that utilises the Aperture and Vessel Indices, similar to that employed by David Aston for the pottery from Elephantine (Aston 1999a: 9–14; cf. also Aston 1998: 41–48). This system has been modified slightly in terms of the break-down of form categories in order to better reflect the Dakhleh material (TABLE 3.4). A more detailed mathematical classification is not possible due to the fragmentary nature of the corpus; however, the application of this simple analysis provides a formal structure on which a more subjective classification can be based.

The Aperture Index (AI) is a numerical expression of the relationship between the aperture (AP) and the maximum body diameter (MBD), and is used to determine whether a vessel is 'open' or 'closed', whilst the Vessel Index (VI) expresses the relationship between the height of the vessel (HT) and the maximum body diameter (MBD), and is used to determine the overall proportion of a vessel (cf. Aston 1999a: 10–12). These indices are expressed by the following equations based on the measurements outlined in FIGURE 3.12:

$$AI = \frac{MBD}{AP} \times 100 \qquad VI = \frac{MBD}{HT} \times 100$$

A total of 101 forms are presented here along with numerous sub-divisions, which for the most part represent variations in rim shape. Where sufficient similarities exist between particular forms, these are discussed together as a group to enable direct comparisons to be made. The forms presented below are generally arranged so that they progress from open through to closed shapes, and from shallow to tall and short to deep. There is also a general progression from simple to complex forms. Handled and spouted vessels are each grouped separately, except in a few instances where it has seemed more practical to group them with vessels of similar basic form (e.g. Forms 13–14). Asymmetrical vessels are also grouped separately, whilst non-vessels (stands) are treated last.

I have deliberately avoided using terms such as 'mug, 'jug', 'goblet', 'plate' and 'dish', as employed, for example, by David Aston in his study of Late New Kingdom to Early Ptolemaic pottery from Elephantine (Aston 1999a: 9–14), as well as terms such as 'casserole', baking dish' and 'stew pot' as used by Andrea Berlin for the Ptolemaic pottery from Naukratis (Berlin 2001: 33–35). I believe that terms like these lead to a preconceived notion about the function of different vessel forms, which is not always correct and hinders our ability to examine the material objectively. For example, a small bowl like Form 9 could have functioned variously as a cup, a bowl, a lid or even a lamp. To avoid the problem of misidentification, I have instead opted to use the more general term 'bowl' to refer to all open shapes and 'jar' to refer to all closed shapes. These are further described as shallow/medium/deep and short/medium/tall respectively, and if appropriate, as handled or spouted. Observations about the possible function of particular forms are incorporated separately into the discussion. In the following section, only a single example of each form or sub-form is illustrated; however, a full list of occurrences of each form is presented in APPENDIX 3, TABLE A3.1. Parallels from the Nile Valley and elsewhere are noted in the discussion below; however, a more extensive list of parallels is presented in APPENDIX 3, TABLE A3.2.

TABLE 3.4 Break-down of form classification based on Aperture and Vessel Indices.

BOWLS (Open Shapes) AI 100–140			JARS (Closed Shapes) AI >140		
VI >275	VI 275–125	VI <125	VI >100	VI 100–75	VI <75
SHALLOW	MEDIUM	DEEP	SHORT	MEDIUM	TALL

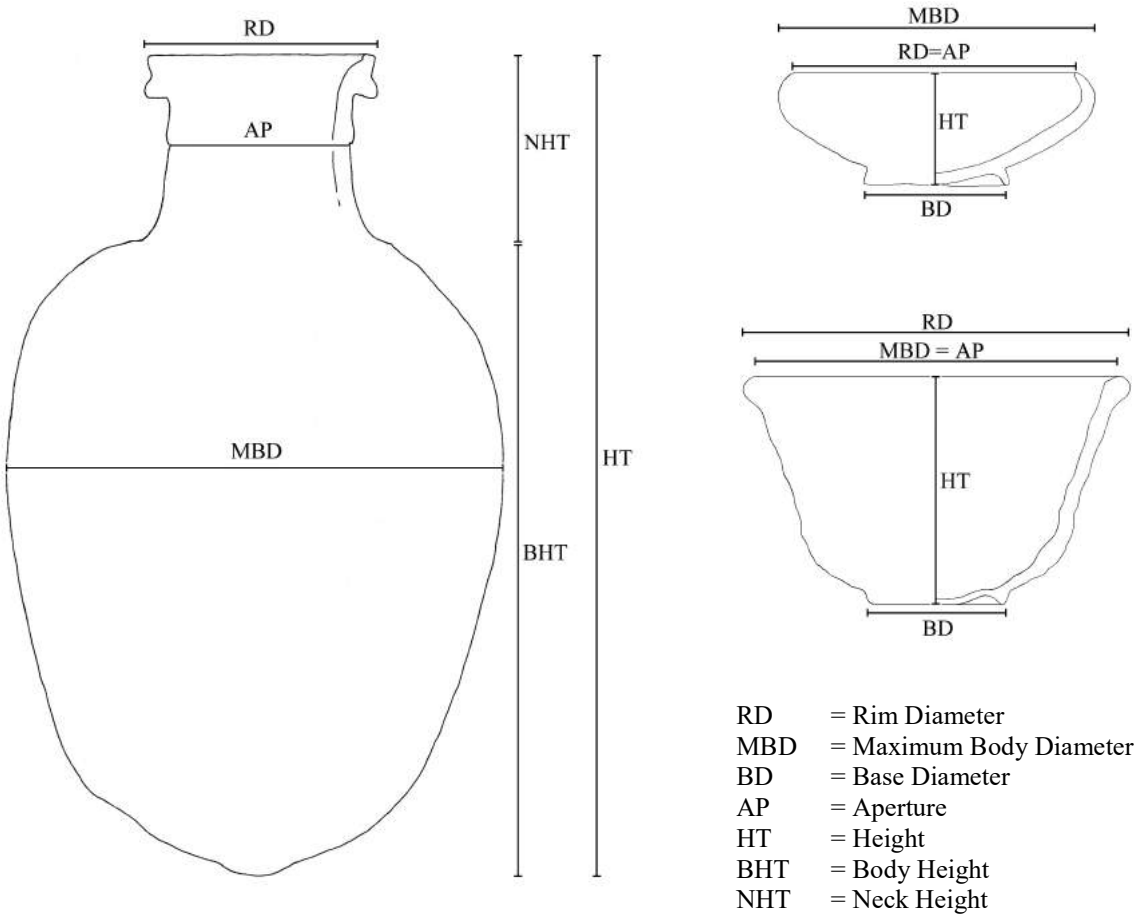


FIGURE 3.12 Overview of vessel measurements.

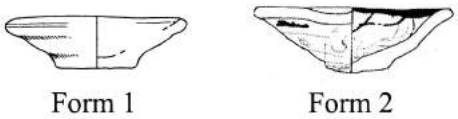


FIGURE 3.13

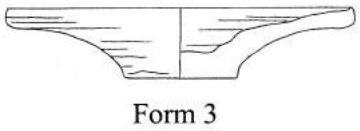


FIGURE 3.14

SHALLOW BOWLS

FORMS 1–2 (FIGURE 3.13; PLATE B.30)

Forms 1 and 2 are shallow bowls with thickened rims and footed bases. Form 1 is wheel-made, with a footed base, which has been string-cut from the wheel. Twelve examples are included in the corpus. Form 2 is more roughly formed, possibly on a slow wheel, and has an irregular, uneven base that seems to have been finished by hand. Four examples are included in the corpus. The majority of Form 1 and 2 vessels are made in Fabric A1 (69%), although there are isolated examples made in Fabrics A31, A28 and B15. All of the vessels are uncoated, apart from a single example with an irregular black rim-band (Form 2, Number **1021**). These forms are quite generic and appear to have had a long history of use. Parallels from the Nile Valley date from the 4th century (Aston 1999a: Pl. 78, Nos 2154–2161) and throughout the Ptolemaic Period (Aston 1999a: Pl. 111, No. 2937; Pl. 113, Nos 3000–3001; cf. APPENDIX 3). Such vessels were likely also used as lids.

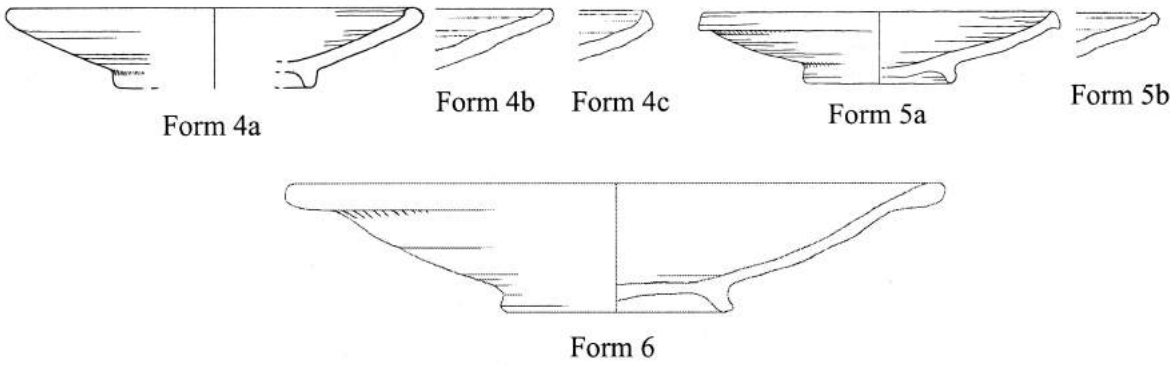


FIGURE 3.15

FORM 3 (FIGURE 3.14)

Form 3 is a shallow bowl with a modelled rim and a flat/footed base. A single example is included in the corpus and it is made in Fabric A1 and is cream-slipped. Based on parallels from the Nile Valley, this form can be dated to the 3rd or 2nd century (Aston 1999a: Pl. 100, Nos 2638–2639; Coulson and Leonard 1982: Ills 11.80–72). The fact that the rim has been modelled to form a narrow ridge may indicate that this vessel was actually used as a lid.

FORMS 4–6 (FIGURE 3.15; PLATES B.45–B.46)

Forms 4–6 are shallow bowls with modelled rims and ring-bases. These vessels are all similar in overall form, but have been separated into three different form categories based on the angle of the rim, and further subdivided according to variation in rim-shape. Form 4 vessels have a rim that protrudes internally (8 examples), with three variations in rim-shape including rounded (4a), thickened (4b), and angular (4c). Form 5 vessels have a rim that protrudes externally (8 examples), with two variations in rim-shape including angular (4a), and rounded (4b). Form 6 is represented by only one example; this has a much thicker, outward angled rim. Forms 4 and 5 are rather consistent in size, with an average rim diameter of approximately 20 cm. The single example of Form 6 has a rim diameter of 34 cm, and is much larger than is usually the case for such vessels, although similar vessels of this size are known from both Mut al-Kharab (cf. Gill 2012a: Fig. 1c) and the Nile Valley (Berlin 2001: Fig. 2.4, No. 7). Form 4–6 vessels are all made in Fabric A1, apart from a single example that might be an import from the Nile Valley (Form 4a, Number **760**). These forms are usually uncoated (69%), although two red-slipped examples are known, as well as three examples of 'Ptolemaic Black Ware', which are black-fired and polished/burnished (Form 4, Numbers **367**, **760–761**; cf. Gill 2012a). Close parallels for these forms can be found in the Nile Valley where they are most often dated to the 3rd or 2nd century (Aston 1999a: Pl. 111, No. 2928; Pl. 94, No. 2510; Berlin 2001: Figs 2.1–2.3; cf. APPENDIX 3).

FORM 7 (FIGURE 3.16)

Form 7 is a shallow bowl with a rounded base and curved vessel wall (4 examples). Variations in rim-shape include rounded (7a), flattened (7b), and pointed (7c). All examples of this form are made in Fabric A1 and are uncoated. Parallels from Elephantine date from the 4th through 2nd centuries (Aston 1999a: Pl. 84, No. 2272; Pl. 102, No. 2690; Pl. 104, No. 2743; cf. APPENDIX 3).

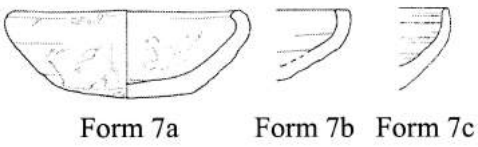


FIGURE 3.16

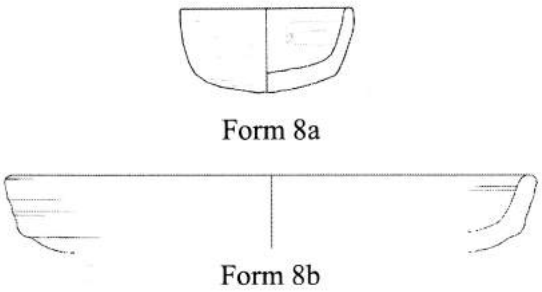


FIGURE 3.17

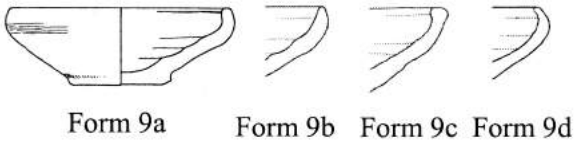


FIGURE 3.18

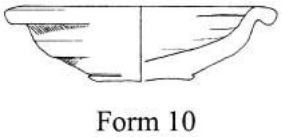


FIGURE 3.19

FORM 8 (FIGURE 3.17)

Form 8 is a shallow bowl with a rounded base and straight vessel wall. It has been sub-divided to include a narrower form (8a), and a wider form (8b). Neither is particularly common in the assemblage with one example of 8a and two examples of 8b. Examples of this form are made in Fabrics A1 or A2. The single example of Form 8a is red-slipped, as is one example of Form 8b, whilst the other is uncoated. Form 8a is paralleled in 3rd century contexts at Elephantine (Aston 1999a: Pl. 93, No. 2487; Pl. 108, No. 2851), and elsewhere at Mut al-Kharab in 4th century contexts (Hope 2003a: Fig. 11a). Form 8b appears to date from the 5th through 3rd centuries based on parallels from the Nile Valley (Aston 1999a: Pl. 69, Nos 1979–1980; Pl. 104, No. 2739; cf. APPENDIX 3), as well as parallels from Mut al-Kharab, and does not appear to have been manufactured much later.

FORM 9 (FIGURE 3.18; PLATES B.31 and E.16)

Form 9 is a shallow bowl with an incurved rim and a footed base. At least 18 examples are found in the corpus, although this form is also frequently encountered in contexts of mixed date at Mut al-Kharab. Rim-sherds of this type are regularly found in Ptolemaic contexts, although it is often unclear whether they derive from vessels comparable to Form 9 or Form 11. This form has been sub-divided based on variations in rim-shape, which include rounded (9a), pointed (9b), thickened (9c), and hooked (9d). Form 9 vessels are relatively consistent in size, with an average rim diameter of 12 cm. They are invariably made in Fabric A1 and are predominantly uncoated (89%), whilst some examples are cream-slipped (11%). Numerous parallels for Form 9 can be found in the Nile Valley and are mostly dated to the 3rd or 2nd centuries (Aston 1999a: Pl. 104, No. 2742; Pl. 118, No. 3079; cf. APPENDIX 3). In the oasis, this form continues to be encountered during the Early Roman Period (cf. Dunsmore 2002: Fig. 1n).

FORM 10 (FIGURE 3.19)

Form 10 is a shallow bowl with a footed base, which has been string-cut from the wheel, and an out-turned overhanging rim. Four examples of this form are found in the corpus. Three of these are made in Fabric A1 and are uncoated, whilst a single example is made in Fabric B3 (Number **1022**) and is red-slipped. In the Nile Valley, this form is regularly encountered during the 5th and 4th centuries (Aston 1999a: Pl. 78, Nos 2162–2163), although it remained in use during the Early Ptolemaic Period (Aston 1999a: Pl. 111, No. 2941; Masson 2011: Figs 38–39; cf. APPENDIX 3). At Mut al-Kharab it is more common in contexts dating to Dynasty XXVII (cf. Hope 2003a: Fig. 11e), although it is occasionally encountered in Ptolemaic contexts.

FORM 11 (FIGURE 3.20)

Form 11 is a shallow bowl with an incurved rim and a ring-base. At least fourteen examples of this form are included in the corpus, as well as many rim-sherds of similar type, which may belong to vessels similar to Forms 9 or 11. This form has been sub-divided according to variations in rim shape, which include rounded (11a), thickened (11b), and pointed (11c). Form 11 vessels are mostly made in Fabric A1 (86%), with isolated examples in Fabric A5 and Fabric B3. Fragments from small bowls that are probably similar to Form 11 have been found at Mut al-Kharab, which appear to be imports of Greek origin (e.g. Number **51**). Form 11 vessels are usually uncoated (79%), although some examples are red-slipped (21%). Numerous parallels can be found in the Nile Valley, usually dating to the 3rd or 2nd centuries (Aston 1999a: Pl. 92, No. 2454; Pl. 97, No. 2547; Berlin 2001: Fig. 2.8, Nos 1, 7; cf. APPENDIX 3). Parallels from Athens occur earlier than this (Sparkes and Talcott 1970: Fig. 9, No. 944; cf. APPENDIX 3), but in Egypt the form is not common before the 3rd century.

FORMS 12–14 (FIGURE 3.21)

Form 12 is a shallow carinated bowl with a rounded base (4 examples). Form 13 is similar to Form 12 in shape but has horizontal loop-handles on the upper body (1 example). Form 14 also has handles but has a sharper carination and an internal ledge at the rim (2 examples). Form 12 has been sub-divided according to variations in rim-shape, which include simple (12a) and modelled (12b). Forms 12–14 are relatively consistent in size, with rim diameters ranging between 16 and 20 cm. All examples of these forms are made in Fabric A1, although they differ according to ware. Form 12 vessels are either cream-slipped (3 examples) or red-slipped (1 example), with two of the former also bearing painted decoration. The single Form 13 vessel is red-slipped, whilst both examples of Form 14 are uncoated.

Form 12 is comparable to silver vessels of Achaemenid origin, including examples found in Egypt that date to the 4th or early 3rd centuries (Pfrommer 1996: 174, Fig. 5), whilst parallels to Form 14 date to the 3rd or 2nd centuries (Coulson and Leonard 1982: Ill. 4.10; cf. APPENDIX 3). It is likely that Form 12 vessels were used as tableware, based on their similarity to silver vessels and the fact that some of them are decorated, whilst Forms 13 and 14 appear to have been used for cooking, given the presence of handles and smoke-blackening on these vessels.

FORM 15 (FIGURE 3.22)

Form 15 is a shallow carinated bowl with a thickened rim and a footed base, which has been string-cut from the wheel. Four examples of this form are included in the corpus, three made in Fabric A1 and one in Fabric A2. All four examples are uncoated. Similar forms are encountered in Egypt as early as the 5th century (Aston 1999a: Pl. 70, Nos 2011–2012), and continue in use through to at least the 2nd century (Aston 1999a: Pl. 111, No. 2945; Marchand 2002a: Fig. 5b; cf. APPENDIX 3).

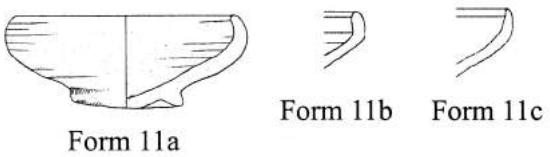


FIGURE 3.20

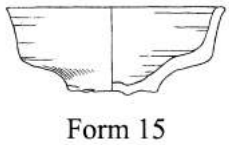


FIGURE 3.22

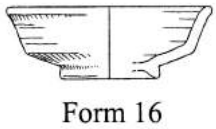


FIGURE 3.23

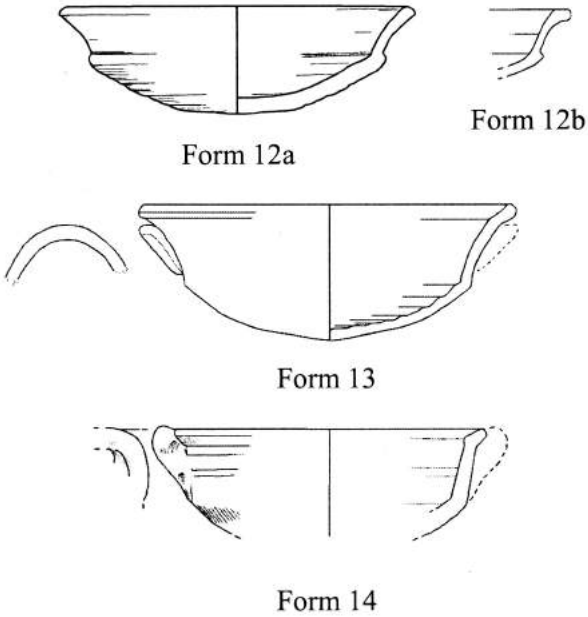


FIGURE 3.21

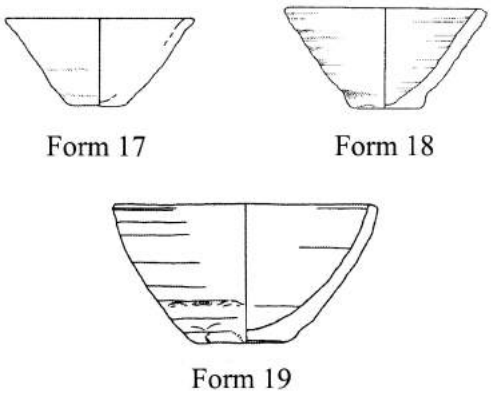


FIGURE 3.24

FORM 16 (FIGURE 3.23)

Form 16 is a shallow carinated bowl with a thickened rim and an applied ring-base. Four examples of this form are included in the corpus and all are made in Fabric A1. Three of these are red-slipped, with one uncoated example. Parallels from Egypt date to the 3rd and 2nd centuries (Aston 1999a: Pl. 97, No. 2549; Pl. 102, No. 2695; Pl. 110, Nos 2912, 2914; Harlaut 2002: 284, Figs 11c–d; cf. APPENDIX 3), although the form is encountered slightly earlier in Athens (Sparkes and Talcott 1970: Fig. 8, Nos 806, 808).

MEDIUM BOWLS

FORMS 17–19 (FIGURE 3.24)

Forms 17–19 are medium, straight-sided bowls with flat or footed bases and direct rims. Form 17 has a flat base; four examples are included in the corpus. Form 18 has a footed base; two examples are included in the corpus. Form 19 has a flat base and also a slightly incurving vessel wall; a single example is included in the corpus. All examples of these forms are made in Fabric A1, apart from a single example of Form 17, which is made in Fabric A31. All are uncoated. Form 18 is paralleled in Egypt during the late 3rd to 2nd centuries (Aston 1999a: Pl. 120, No. 3124), whilst parallels to Form 19 likewise date to the 3rd and 2nd centuries in Egypt (Aston 1999a: Pl. 111, No. 2955; Pl. 115, Nos 3023–3025), and to the late 4th or early 3rd centuries in Athens (Rotroff 2006: Fig. 52, No. 312; cf. APPENDIX 3).

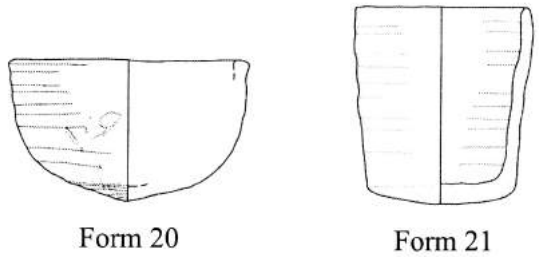


FIGURE 3.25

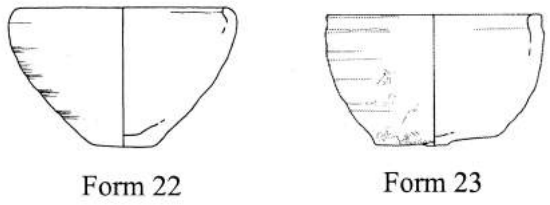


FIGURE 3.26

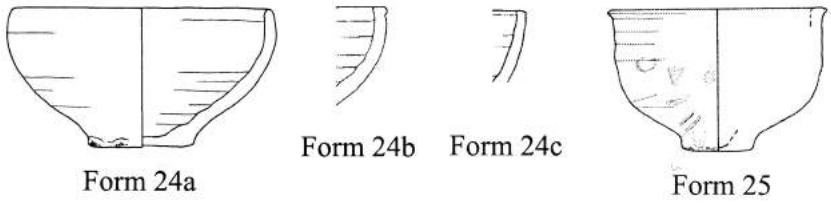


FIGURE 3.27

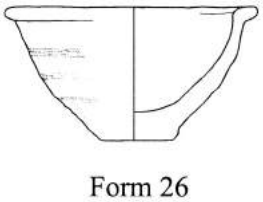


FIGURE 3.28

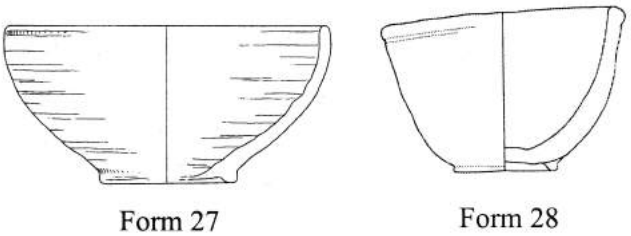


FIGURE 3.29

FORMS 20–21 (FIGURE 3.25; PLATE E.20)

Forms 20 and 21 are medium bowls with round bases. Form 20 has a thickened rim (8 examples), whilst Form 21 has straight sides and a direct rim, as well as distinct transition to the base (1 example). All examples of these forms are made in Fabric A1. Form 20 vessels are mostly uncoated, although two examples are cream-slipped and painted decoration does occur in two instances. The single example of Form 21 is uncoated. Parallels to Form 20 can be found in Egypt dating to the 3rd and 2nd centuries (Aston 1999a: Pl. 91, No. 2445; Pl. 101, No. 2649; Pl. 115, No. 3037; Pl. 120, No. 3117). Form 21 is not a common Ptolemaic form, with only a single complete example included in the corpus, and is paralleled in contexts dating to the 5th and 4th centuries at Elephantine (Aston 1999a: Pl. 66, No. 1931). As this example was found in a tomb alongside Ptolemaic vessels it has been included in the corpus, although it could perhaps be interpreted as an heirloom.

FORMS 22–23 (FIGURE 3.26; PLATE B.28)

Forms 22 and 23 are medium bowls with incurving walls and flat bases. Form 22 has a narrow base and an incurved rim (2 examples). Form 23 has a wide base and a thickened rim (6 examples). All of the examples of these forms are made in Fabric A1, apart from one example of Form 22, which is made in Fabric A28. Of the Form 22 vessels, one example is uncoated, whilst the other is cream-slipped. Five of the Form 23 vessels are uncoated, although three have red rim-bands, whilst one example is cream-slipped. A parallel to Form 22 from Karnak dates to the late 4th century (Masson 2011: Fig. 14), whilst a parallel to Form 23 from Elephantine dates to the 3rd century (Aston 1999a: Pl. 108, No. 2868).

FORMS 24–25 (FIGURE 3.27; PLATES B.4, B.32 and E.40–E.41)

Forms 24 and 25 are medium bowls with convex walls and a footed base. Form 24 has been sub-divided according to variations in rim shape, which include direct (24a), modelled with an external groove (24b) and flattened (24c). The bases have been string-cut from the wheel and sometimes finished by hand, as evidenced by the finger impressions found on the base of some vessels. Form 25 is similar to Form 24 in overall form, but is distinguished by a narrower base with a more pronounced foot. Form 24 and 25 vessels are rather uniform in size, with the rim diameter almost always between 12 and 14 cm. At least sixteen examples of Form 24 and nine examples of Form 25 are included in the corpus, and all are made in Fabric A1. The majority of these vessels are cream-slipped (69%), whilst the remainder are uncoated (27%); one example has a mixed-slipped (Number **246**). In most cases the cream slip coats the interior and the upper half of the exterior. In the oasis, these forms are found only in Ptolemaic contexts. In particular, vessels with an external groove below the rim (Form 24b) appear to be characteristic of the Ptolemaic Period, and parallels form the Nile Valley date to the 3rd and 2nd centuries (Aston 1999a: Pl. 112, No. 2986; Marchand 2002a: Figs 7b–d; cf. APPENDIX 3).

FORM 26 (FIGURE 3.28)

Form 26 is a medium bowl with convex sides and a footed base, which has been string-cut from the wheel. It is similar to Forms 24–25, but has a more distinct modelled rim that projects outward. A single example of this form is included in the corpus, and it is made in Fabric A5 and is uncoated. Possible parallels to this form are found at Elephantine, which date to the Late 3rd or 2nd century (Aston 1999a: Pl. 111, Nos 2943, 2950).

FORMS 27–28 (FIGURE 3.29)

Forms 27 and 28 are medium bowls with convex sides and ring-bases. Form 27 has a simple direct rim. Form 28 has a thickened rim and a straighter vessel wall (2 examples). Five examples of Form 27 are included in the corpus and are made in Fabric A1 or A2. Three of these vessels are cream-slipped, whilst one has a mixed-slipped and another is uncoated. Only two examples of Form 28 are included in the corpus; one of these is made in Fabric A1, whilst the other is made in Fabric B3, and both are uncoated. Numerous parallels to Form 27 are found in the Nile Valley and date from the 3rd to 2nd centuries (Ballet 1997: Pl. 1, No. 1; Coulson and Leonard 1982: Ills 11.81–2; cf. APPENDIX 3). Form 28 is similar to vessels from Elephantine that date to the Late 3rd or 2nd century (Aston 1999a: Pl. 115, Nos 3023–3024, 3027).

FORMS 29–30 (FIGURE 3.30; PLATES B.18–B.19, E.22, E.26 and E.34)

Forms 29 and 30 are medium-deep bowls with modelled rims and ring-bases. Form 29 represents a deeper version of Form 30. These are very common forms with more than a hundred examples included in the corpus, although Form 30 is encountered much more frequently. Form 30 has been sub-divided according to variations in rim shape of which there are many. The most common is a flaring rim with a rounded exterior and angled interior (30a), while variations include rounded (30b), ridged (30c–d), and collared (30e–f). For the most part, these vessels are relatively consistent in size with an average rim diameter of approximately 20 cm. Form 29 and 30 vessels are predominantly made in Fabric A1 (92%), with a few examples in Fabric A2 (4%), two examples in Fabric A28, one in Fabric A5, and one in Fabric A31. Many of these vessels are cream-slipped (56%), or otherwise are uncoated (39%). A few of the cream-slipped vessels are decorated (5%), and in all cases this comprises a red rim-band. These forms are characteristic of the Ptolemaic Period pottery tradition in Dakhleh and parallels from the Nile Valley support such a date (Aston 1999a: Pl. 111, No. 2925; Pl.

118, No. 3083; cf. APPENDIX 3). Very similar forms are also encountered in Kharga at 'Ain Dabashiya (Dunand *et al.* 2013: Figs 178–179), and at both 'Ain Manawir and Dush, they are encountered amongst Early Ptolemaic ostraka (Wuttmann *et al.*1998: Figs 59d–e, 60a–b). These forms are clearly of Hellenistic origin, with parallels found at Athens (cf. Rotroff 2006: Fig. 50, No. 288).

FORMS 31–33 (FIGURE 3.31)

Forms 31 and 32 are medium bowls with modelled rims and ring-bases. They are quite similar to Forms 29 and 30, although they tend to be shallower with a more acutely angled vessel wall. They are also much larger in size with an average rim diameter of around 36 cm, although it can range anywhere between 30 and 48 cm. A key issue with the identification of these forms is the lack of complete vessels, or even complete profiles within the corpus. Often only rim sherds are preserved, which makes it difficult to assess the overall form of such vessels. With this in mind, two variations in form have been tentatively identified; Form 31 displays a more obvious transition between the upper and lower sections of the vessel wall, whilst Form 32 displays a more subtle transition. This difference is rather subtle and it is obvious that the two forms are closely related, so such a distinction might turn out to be unnecessary. Form 32 has been sub-divided according to differences in rim-shape, although considering the fragmentary nature of many of the examples these rims could derive from vessels similar to either Form 31 or 32. Rim-shapes include rounded (32a), square (32b), and square with an internal projecting ledge (32c). Forms 31 and 32 are encountered frequently in the oasis, with at least 65 examples included in the corpus. Such vessels are predominantly made in Fabric A1 (92%), with a few examples made in Fabric A2 (8%). Approximately half of the examples are cream-slipped (49%), whilst a small number are cream-slipped and decorated (8%), with the decoration limited to painted red rim-bands. The remainder are either uncoated (34%) or red-slipped (5%). Two unique examples from Site 22 are cream-slipped and polished (Numbers **961** and **964**). Forms 31 and 32 are frequently encountered in Ptolemaic contexts in Dakhleh. Parallels from the Nile Valley date to the 4th and 3rd centuries (Aston 1999a: Pl. 83, No. 2262; Pl. 84, No. 2275; Pl. 107, No. 2837; Jaritz and Rodziewicz 1994: Fig. 8, No. 83; cf. APPENDIX 3), but the form appears to be of Hellenistic origin and was produced in Athens until at least the late 2nd or early 1st century (Rotroff 2006: Fig. 51, No. 301). Form 33 represents a unique case. It appears to be similar to Form 31, although it is represented by only a single rim sherd so the overall form of the vessel and the base type are unknown. This sherd is made in Fabric A1, and is cream-slipped with black and red painted decoration, which stands out as painted decoration is otherwise not encountered on Form 31 and 32 vessels, apart from simple rim-bands as mentioned above. Parallels to this form found at Elephantine, also decorated, raise the possibility that our Form 33 is in fact substantially different to Forms 31 and 32. One parallel example has a rounded base (Aston 1999a: Pl. 86, No. 2313), whilst another has large lug handles on the upper body but no base preserved (Aston 1999a: Pl. 95, No. 2530).

FORMS 34–35 (FIGURE 3.32)

Forms 34 and 35 are medium-deep bowls with modelled rims. As no complete examples of either form have been found the base types are unknown, although it is possible that they had ring-bases comparable to Forms 31 and 32. Form 34 is a straight sided bowl with a modelled rim that is almost rectangular in profile. Six examples are included in the corpus and these are all made in Fabric A1, apart from a single vessel made in Fabric A31. Four of the vessels are cream-slipped, whilst the other two are uncoated, and two vessels are decorated with painted bands. Form 35 is a deep bowl with a modelled rim, similar to Form 34 but more incurved. Seventeen examples are included in the corpus, all of which are made in Fabric A1, apart from a single vessel in Fabric A2. All but one of these vessels is cream-slipped. No direct parallels have been found for these forms.

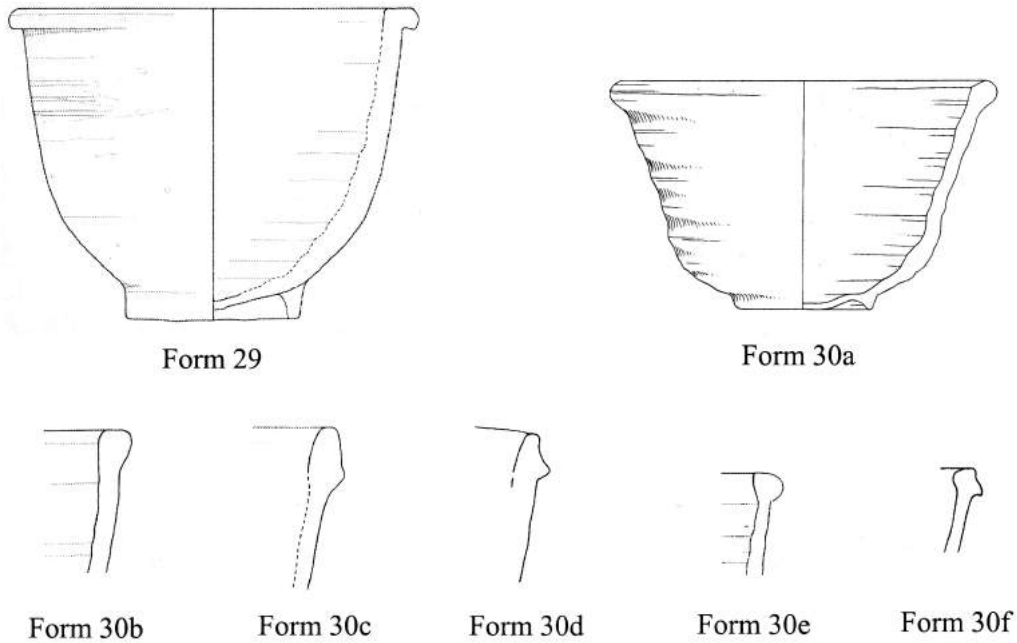


FIGURE 3.30

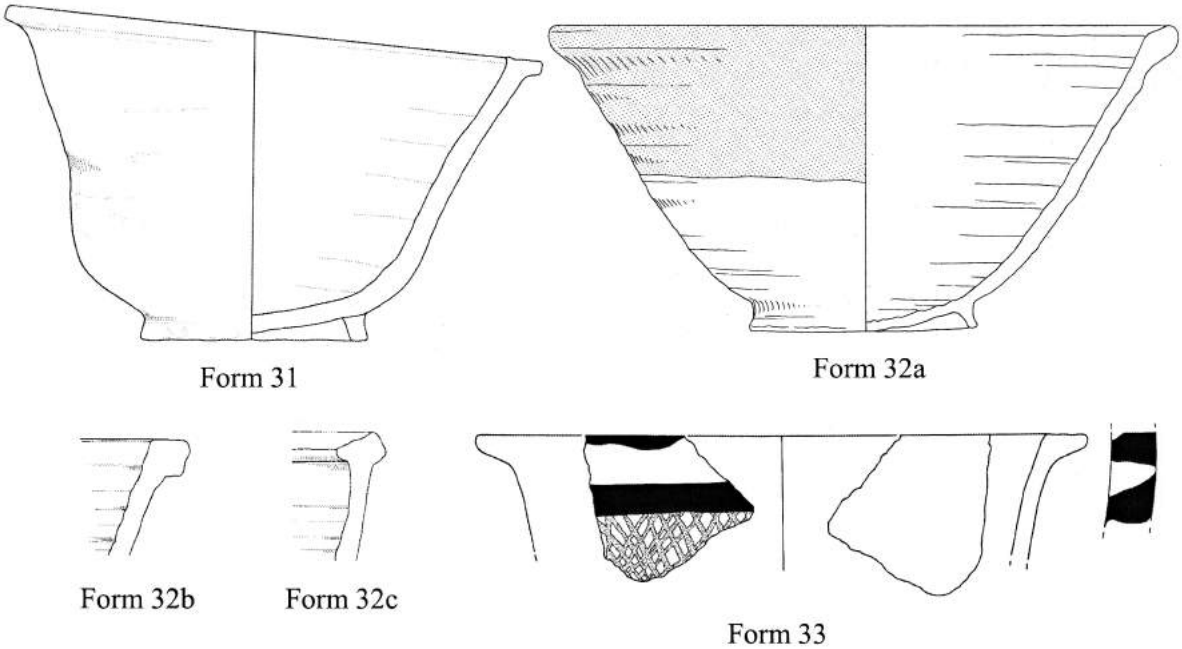


FIGURE 3.31

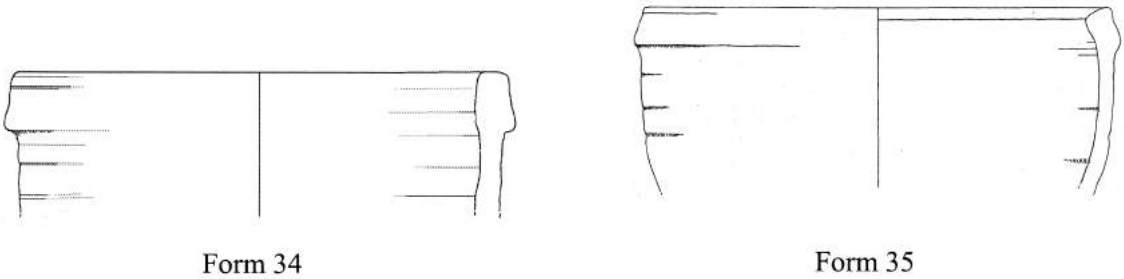


FIGURE 3.32

FORMS 36–37 (FIGURE 3.33; PLATES B.1; B.12; E.21)

Forms 36 and 37 are medium carinated bowls with thickened or modelled rims and rounded bases. Form 37 represents a deeper variation of Form 36. At least three, and as many as six examples of Form 36 are included in the corpus, and all are made in Fabric A1. Three of these vessels are cream-slipped and decorated in red and/or black, whilst the other three are uncoated. Form 37 is represented by a single example, which is made in Fabric A2 and is cream-slipped. Parallels from the Nile Valley date to the 3rd or 2nd century (Marchand 2002a: Figs 10a,b,e; Schreiber 2003: 98, No. 39). These forms might have been inspired by Achaemenid style silver vessels, such as those found at Tukh el-Quarmous (Pfrommer 1996: 174, Fig. 5), although a very similar form was also produced in Athens during the 4th century (Sparkes and Talcott 1970: Fig. 7, Nos 691–692). Whilst parallels to Form 36 from 'Ain Manawir in Kharga have been dated to the 5th–4th centuries (Marchand 2002a: Figs 11a–c), the style of the decoration points to a 3rd century date for the Dakhleh vessels.

FORMS 38–39 (FIGURE 3.34; PLATES E.28–E.29)

Forms 38 and 39 are medium carinated bowls with modelled rims and footed bases, which have been string-cut from the wheel. Form 38 is characterised by a carination low in the vessel wall, close to the transition to the base, whereas Form 39 has a higher carination, approximately halfway up the vessel wall. Form 38 is a relatively common Ptolemaic form, with at least 24 examples included in the corpus, although rim-sherds of similar type are often encountered in Ptolemaic contexts and possibly derive from vessels of this form. These vessels are mostly made in Fabric A1 (89%), with a few examples in A31 (11%), and they are for the most part uncoated (61%), or cream-slipped (36%), with one red-slipped example. Form 39 is represented by only two examples and only one preserves a complete profile. Both examples are made in Fabric A1, with one uncoated and the other cream-slipped and decorated with red paint. This form appears to be quite similar to Form 36, in terms of the shape of the carination and the upper body, but with a different base type. The same can be said for Form 40, which also has a similar carinated body shape, but has a ring-base. Parallels to Form 38 from the Nile Valley date to the Late 3rd–2nd centuries (Aston 1999a: Pl. 112, No. 2969; Pl. 115, Nos 3034–3035; cf. APPENDIX 3), whilst a similar form is found in Kharga (Dunand *et al.* 2013: Fig. 191).

FORM 40 (FIGURE 3.35; PLATE B.13)

Form 40 is a medium carinated bowl with a modelled rim and an applied ring-base. This form is represented by only a single example, which is made in Fabric A1 and is cream-slipped with red and black painted decoration. Few parallels have been identified for this form. A similar vessel found at Saqqara has been dated to the Early Ptolemaic Period (Gallorini 2007: Fig. 1c/1071), whilst another from El-Deir in Kharga has been given a Late Dynastic or Early Ptolemaic date (Brones 2010: Figs 275, 378). Our vessel can be dated to the 3rd or 2nd century given the style of the decoration and the date of the associated pottery.

FORM 41 (FIGURE 3.36; PLATES B.5–B.8)

Form 41 is a medium carinated bowl with a modelled rim and an unknown base-type. Five examples of this form are included in the corpus, although none preserve a complete profile so it is possible that they actually belong to vessels with differing base types. Form 41 has been sub-divided according to the degree of carination (41a–c). This form is similar to Forms 36–40 in terms of the shape of the carination; however, it has been identified as a separate form due to the fact that the base-type is unknown, as well as the fact that these vessels are much greater in size, with a rim diameter of 20–30 cm. All five examples of this form are made in Fabric A1, and are cream-slipped and decorated in

black and/or red paint. Form 41 appears to derive from carinated silver vessels of Achaemenid origin (cf. Pfrommer 1996: 174, Fig. 5); however, without knowing the base-type further comparisons are difficult to make.

FORM 42 (FIGURE 3.37; PLATE B.9)

Form 42 is a medium carinated bowl with a tall applied ring-base and two vertical handles. Only one complete example of this form has been found in Dakhleh, although there are several rim sherds included in the corpus that might belong to such a form. The complete example is made in Fabric A1 and is cream-slipped and decorated in black and red. This form clearly derives from the Greek *kantharos* (Sparkes and Talcott 1970: Fig. 7, No. 721; cf. Kallini 2013), and is encountered elsewhere in Egypt within Ptolemaic contexts (Petrie and Mackay 1915: Pl. XXXVIII, Nos 4–7); however, direct parallels to our form are difficult to find.

DEEP BOWLS

FORM 43 (FIGURE 3.38)

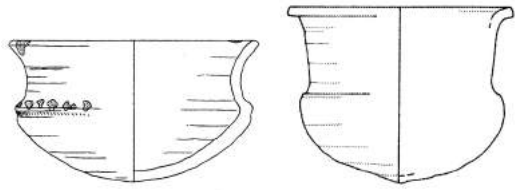
Form 43 is a deep bowl with a modelled rim and a rounded base. The rim is usually thickened, with a protruding internally ridge, and there is often a groove on the exterior below the rim. Most examples of this form are quite fragmentary, although a single almost complete example is included in the corpus. All examples of this form are made in Fabric A1, and are either uncoated or cream-slipped, with approximately equal numbers of each. Form 43 vessels are usually very large in size, with the rim diameter ranging between 30 and 40 cm. No direct parallels have been found for this form.

FORM 44 (FIGURE 3.39)

Form 44 is a deep bowl with a modelled rim that projects outward. The base type is unknown as no complete examples have been found. Four examples are included in the corpus, although there are many additional rim sherds from what are probably similar vessels. All of the examples are made in Fabric A1. They are either uncoated or cream-slipped, with approximately equal numbers of each. No direct parallels have been found; however, a broadly similar form is encountered in a 5th century context at Elephantine (Aston 1999a: Pl. 66, No. 1933).

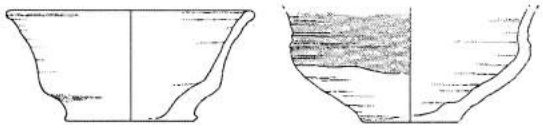
FORMS 45–46 (FIGURE 3.40; PLATE E.32)

Forms 45 and 46 are deep bowls with a complex modelled rim and an applied ring-base. Form 45 has been sub-divided according to variations in rim shape (45a–d). This form is relatively common with at least twenty-two examples included in the corpus. Form 46 represents a handled variant and is less common with only two examples in the corpus. Form 45 and 46 vessels are predominantly made in Fabric A1, apart from a single example made in Fabric A2. Most of these vessels are cream-slipped (62%), half of which are decorated in red and/or black. A few examples are decorated but not slipped, whilst others are completely plain. Two vessels are red-slipped, and one of these is also decorated. In total, more than half of these vessels are decorated. The closest parallels to these forms are found in the Nile Valley, particularly Upper Egypt, and are dated to the Early Ptolemaic Period (Masson 2011: Figs 61–62, 64), or perhaps slightly earlier (cf. Aston 1999a: Pl. 79, No. 2194). These forms appear to have ultimately derived from the Greek *krater*, although they do not display the elaborate handles that are often encountered on such vessels (cf. Poludnikiewicz 1992: Fig. 1). A close parallel to Form 46 comes from Karnak East and is dated to the 3rd or 2nd century (Schreiber 2003: 98, No. 30).



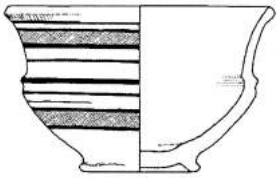
Form 36 Form 37

FIGURE 3.33



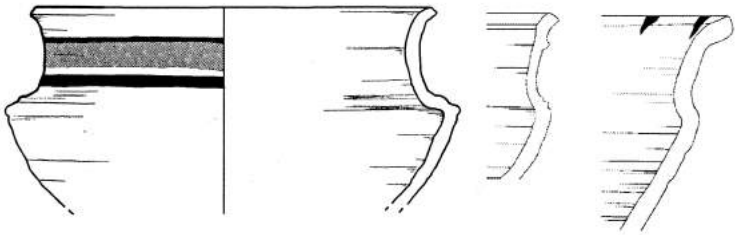
Form 38 Form 39

FIGURE 3.34



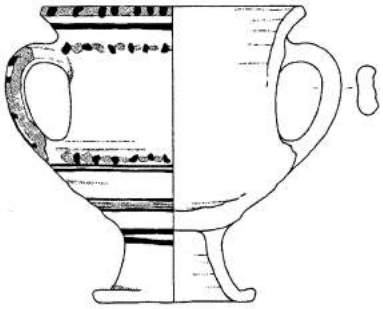
Form 40

FIGURE 3.35



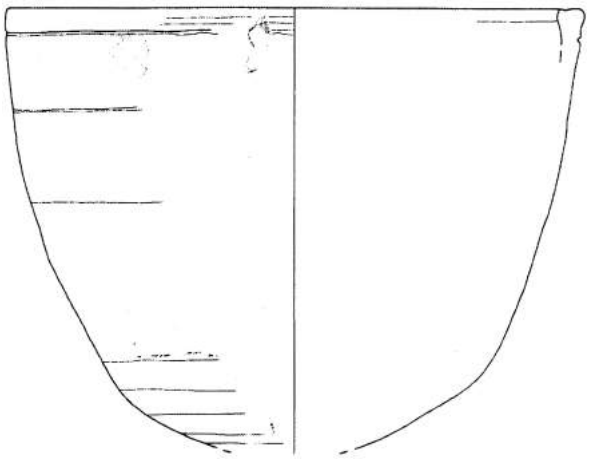
Form 41a Form 41b Form 41c

FIGURE 3.36



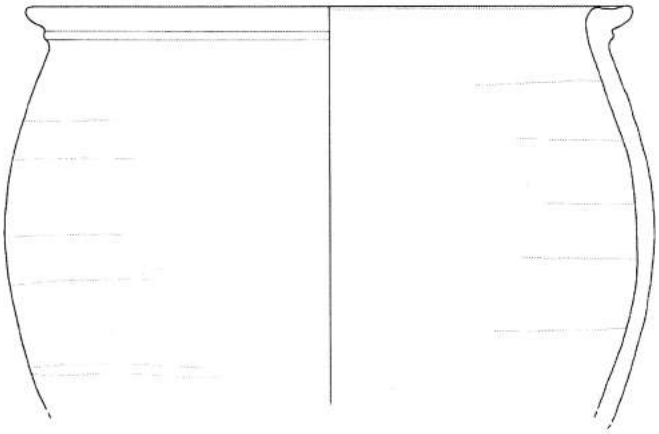
Form 42

FIGURE 3.37



Form 43

FIGURE 3.38



Form 44

FIGURE 3.39

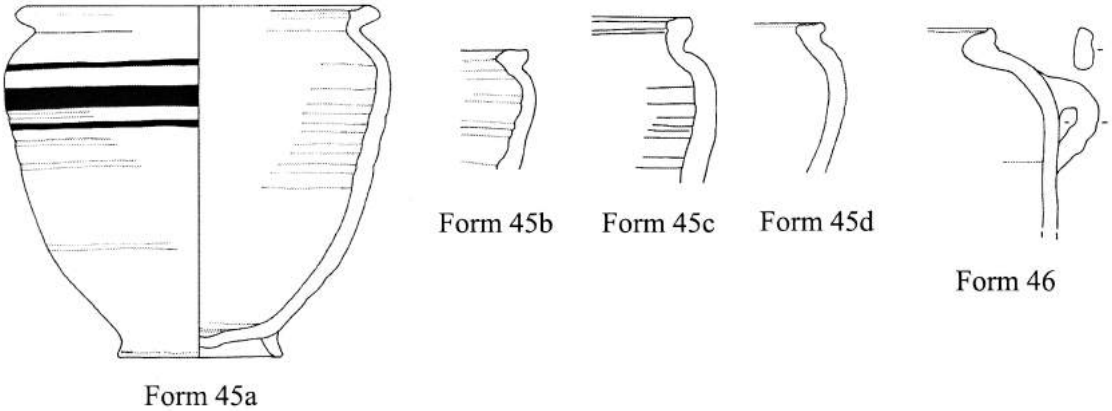


FIGURE 3.40

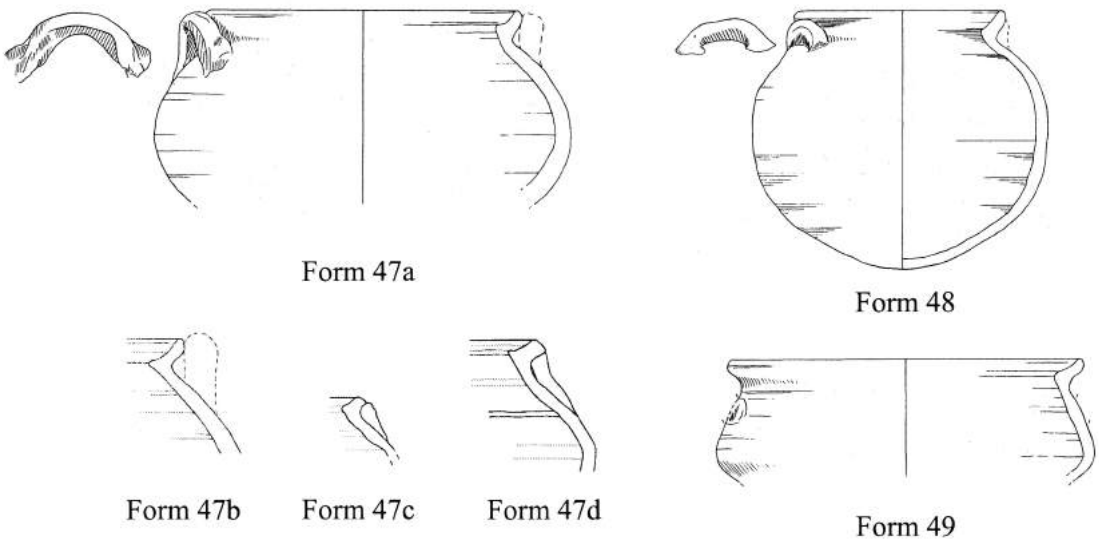


FIGURE 3.41

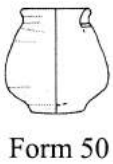


FIGURE 3.42

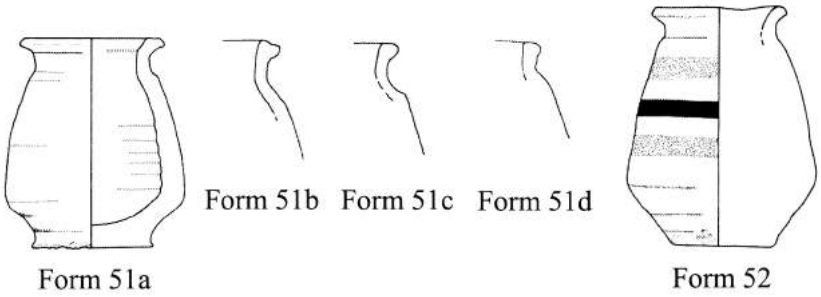


FIGURE 3.43

TWO-HANDLED BOWLS

FORMS 47–49 (FIGURE 3.41; PLATES B.11; B.33)

Forms 47–49 are bowls with a modelled rim, a rounded base and two horizontal loop-handles applied just below the rim. The rim has been modelled to form an internal ledge, which is designed to support a lid. It is clear from the shape, fabric and surface wear that such vessels were used as cooking pots. Very few complete examples of these forms have been discovered, largely due to the fact that the bases have become brittle and broken due to prolonged heat exposure. Despite this, it is possible to divide these vessels into three distinct forms. Form 47 is globular in shape, and is by far the most common with at least twenty-five examples included in the corpus. It has been sub-divided according to variations in rim shape, which range from a distinct internal ledge (47a–b), through to a less-pronounced internal ledge (47c–d). Form 48 is more spherical in shape and is represented by four examples, including a single complete vessel. Form 49 is shallower and has a slight carination in the vessel wall; it is represented by only two examples. All three forms have horizontal loop-handles, the shape of which varies significantly from vessel to vessel. In some cases, the handles are quite pronounced and stand to the height of the rim (47a), whilst in other cases they are squashed against the vessel wall below the rim (47d). Forms 47–49 are predominantly made in Fabric B3 (90%), with a few examples made in Fabric A1 (10%). The majority of the vessels are smoke-blackened and heavily burnt so that the fabric has become brittle and the surface eroded. Most of the examples of these forms appear to have been uncoated (84%), although they are usually stained black from use. A few examples appear to have originally been red-slipped (13%), and there is an isolated example that appears to have been cream-slipped (Form 47; Number **290**). One of the red-slipped examples bears a sheen that could be indicative of a deliberate polish (Form 49; Number **406**), although it might be the result of exposure to fats and oils during use. These forms clearly derive from Greek cooking vessel forms, such as the *caccabè* and *lopas*, which are regularly encountered in Hellenistic contexts in Athens (Rotroff 2006: Fig. 75, No. 595; Fig. 85, No. 671). Parallels to these forms are found throughout Egypt, usually dating to the 3rd–2nd centuries (Aston 1999a: Pl. 104, No. 2734; Pl. 108, No. 2844; Harlaut 2002: 282, Fig. 6a; Masson 2011: Fig. 79; cf. APPENDIX 3). Vessels similar to Forms 47 and 48, but with small vertical handles rather than horizontal handles, are encountered in Early Roman contexts in the oasis (cf. Hope *et al.* 2006: Fig. 3e–f), yet so far have not been found in Ptolemaic contexts. At this stage it appears that horizontal handles on such vessels were a distinctly Ptolemaic feature, and that during the Early Roman Period they were abandoned in favour of vertical handles.

SHORT JARS

FORM 50 (FIGURE 3.42; PLATE E.17)

Form 50 is a short jar with a modelled rim and footed base, which has been string-cut from the wheel. Only one example of this form is included in the corpus, although a spouted variant of this form is also encountered (Form 86). The single example of this form is made in Fabric A1 and is uncoated. No direct parallels to this form have been identified.

MEDIUM JARS

FORMS 51–52 (FIGURE 3.43; PLATES E.6; E.35–E.36; E.42)

Forms 51 and 52 are medium squat jars with a modelled rim and a flat or footed base. Form 51 has a distinct footed base, which has been string-cut from, whilst Form 52 has a flat base, which may have been finished by hand. Form 52 has been sub-divided according to variations in rim shape (52a–d). Seven examples of Form 51 and four examples of Form 52 are included in the corpus, and all are

made in Fabric A1. The majority of vessels are cream-slipped (82%), with three-quarters of these also decorated with black and/or red bands and stripes. The remaining vessels are uncoated (18%). These forms have so far not been encountered at Mut al-Kharab, and interestingly they are only found within tomb contexts. This suggests that they were produced with a funerary-related function in mind, and given the fact that many of these vessels bear traces of resin it is likely that their primary use was as embalming vessels. Parallels to these vessels are difficult to find; the closest parallels come from the cemetery of Begarawiya North at Meroë (Dunham 1957: Fig. 109, Nos 140a–e; Fig. 113, No. 480a). Interestingly, the examples from Meroë are also from tomb contexts and some of them are decorated with black and/or red paint. They are dated approximately to the 2nd century CE, although an earlier date is possible.

FORMS 53–54 (FIGURE 3.44)

Forms 53 and 54 are narrow jars with a flaring rim and a footed base. Form 53 has a simple rim and a roughly finished base. Form 54 has a modelled rim and a more distinct footed base. A single example of Form 53 and two examples of Form 54 are included in the corpus. All three examples are made in Fabric A1 and are uncoated. The function of these vessels is unknown; they could have been used as cups or alternatively as offering vessels within a temple context, and it is perhaps of interest that all three vessels were discovered at Mut al-Kharab. A possible parallel is found in the Nile Valley (Petrie1909: Pl. 46, Nos 67–68), but otherwise parallels are difficult to find. There might be a connection between our forms and the Greek *kalathiskos*, which is a votive vessel found in large numbers in the sanctuary of Demeter and Kore at Corinth (Pemberton 1989: 19–25), and which has a long history of use, from the 7th century through to at least the 2nd century BCE. Whereas earlier examples appear to be wider and often have handles and/or decoration, Type 4 is a small undecorated form without handles, which occurs during the late 4th and 3rd centuries, and which is quite similar to our forms (cf. Pemberton 1989: Fig. 5, No. 148). If there is a connection, this would support the theory that such vessels had a ritual function.

FORM 55 (FIGURE 3.45)

Form 55 is a pear-shaped jar with a rounded base, a narrow neck and modelled rim. Two examples of this form are included in the corpus, one of which is complete. The complete vessel is made in Fabric A1 and is red-slipped, whilst the rim sherd is made in Fabric B3 and is uncoated. A similar form has been found at Ismant al-Kharab, and dates to the Early Roman Period (Dunsmore 2002: 131). A potential parallel comes from the Nile Valley (Petrie 1909: Pl. 46, No. 80), but otherwise close parallels are difficult to find. It is possible that this form derives from the Greek *alabastron*.

FORM 56 (FIGURE 3.46; PLATES B.29; E.19; E.37)

Form 56 is a small complex jar with a thickened rim and round base, also known as a 'double-gourd'. This is a relatively common Ptolemaic form in Dakhleh, with at least eighteen examples included in the corpus. These vessels are predominantly made in Fabric A1 (90%), with isolated examples made in Fabrics A31 and B10. Half are uncoated, whilst the other half are cream-slipped. A larger variant of this form with a more pronounced figure-of-eight shape is encountered in Late Period contexts in the oasis (e.g. Hope 1981: Pl. XXVi; cf. Hope 1999: 229), but the Ptolemaic examples are usually much smaller, with an average rim diameter of 5 cm and less-pronounced curves. Whilst somewhat similar vessels of Ptolemaic date are known from the Nile Valley (Petrie and Mackay 1915: Pl. XLV, Nos 27–28), it is difficult to find close parallels to this form.

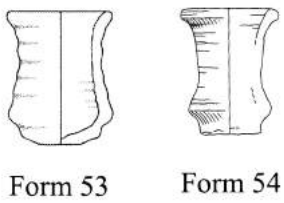


FIGURE 3.44

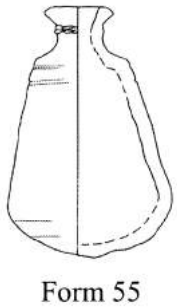


FIGURE 3.45

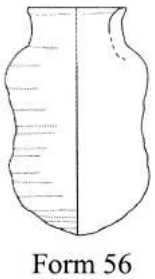


FIGURE 3.46

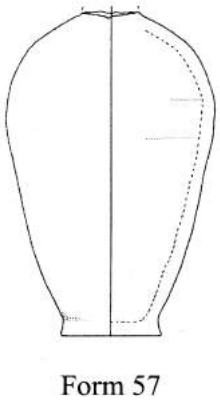


FIGURE 3.47

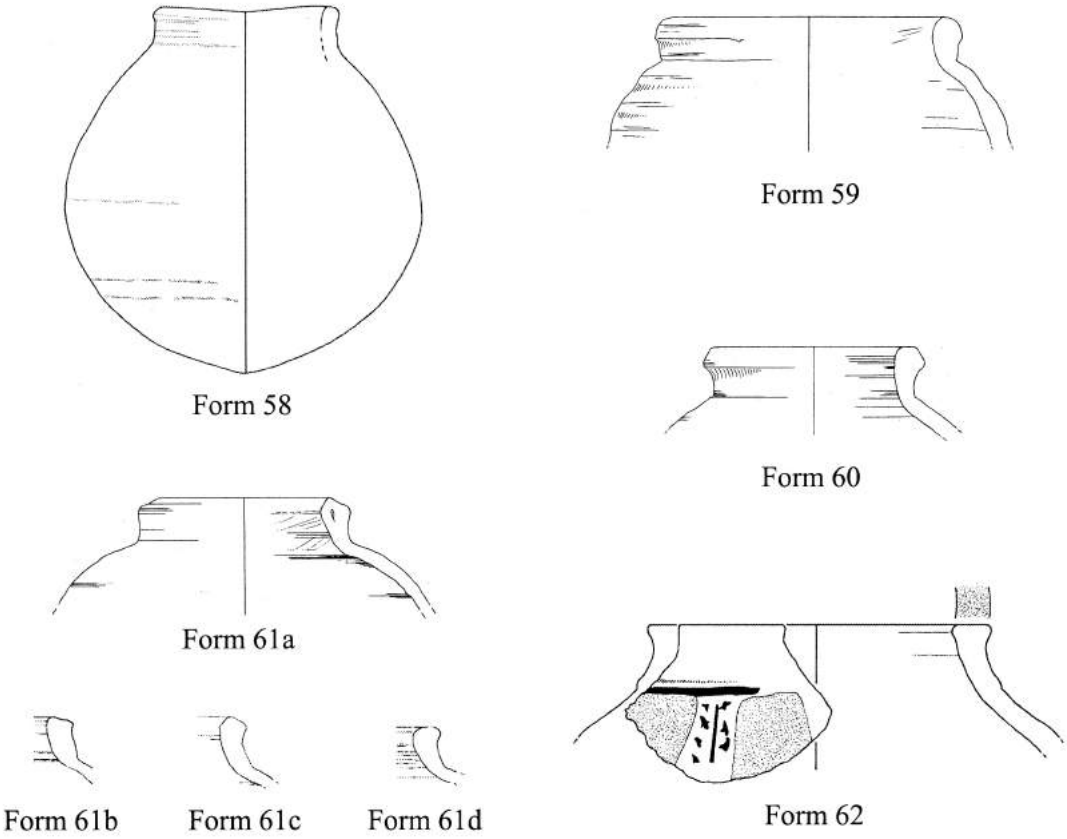


FIGURE 3.48

TALL JARS

FORM 57 (FIGURE 3.47; PLATE E.5)

This is a tall, shouldered vessel with a footed base and an unknown rim-type. A single incomplete example is included in the corpus, which is missing the neck and rim. This is made in Fabric A1 and is uncoated. There is also a miniature vessel, which is similar in form, although likewise broken; however, given that both vessels are broken, it is impossible to know whether they are in fact the same form. The miniature vessel is made in Fabric B3 and is also uncoated. Despite the fact that our Form 57 vessel is incomplete, a number of interesting observations can be made. The vessel is part of a burial assemblage, perhaps to be interpreted as an embalmer's cache, and interestingly, an almost identical vessel, broken in the same place, was found at El-Deir inside a building that has been interpreted as an embalmer's workshop (Dunand and Lichtenberg 2003: 4, Pl. 7). Another similar vessel, again broken at the neck, was discovered in a tomb at 'Ain Dabashiya (Dunand *et al.* 2013: Fig. 167). It appears that this form had a specific funerary-related function, perhaps as a vessel used by embalmers. It is not yet clear why all three vessels are broken in the same way, but it is possible that they were originally sealed and were broken in order to access the contents.

FORMS 58–62 (FIGURE 3.48; PLATE E.38)

Forms 58–62 are ovoid jars with very short or no necks and modelled rims. These forms presumably have rounded bases, although they are typically poorly preserved and are mostly represented by rim-sherds. Form 58 represents one of the few complete forms in this group. It has a short direct rim, which has perhaps been slightly thickened, but which is otherwise not modelled. Two examples are included in the corpus, both of which are made in Fabric A1. One of these is uncoated, whilst the other is cream-slipped. Form 59 has a rounded rim, which has been formed by folding the rim onto itself, as can sometimes be clearly seen in the break. This form is relatively common, with twenty examples included in the corpus. Most of the examples are made in Fabric A1 or A2, although examples in Fabrics A29, A5, A31 and B1 also occur. These are usually uncoated, although a few examples are cream-slipped. Form 60 also has a rounded rim, which has been modelled to form a slight ridge on the exterior. Six examples are included in the corpus, all of which are made in Fabric A1. Most of these vessels are uncoated, whilst a single example is cream-slipped. Form 61 has a modelled rim and has been sub-divided according to variations in rim-shape, ranging from an angular to a more rounded profile (61a–d); however, in each case there is a distinct ridge on the exterior. This form is relatively common with at least seventeen examples in the corpus. Most of these are made in Fabrics A1 or A2, although there are isolated examples in Fabrics A5 and A29. In general, these vessels have a dense groundmass, which suggests that they were used to store liquids. They are usually uncoated, although a few examples are cream-slipped. Form 62 has a modelled rim with a flattened top and an external ridge. This form is represented by only a single example, which is made in Fabric A1 and is cream-slipped and decorated. As such it is the only decorated vessel in this group. Parallels to these forms can be found in the Nile Valley, although this is made difficult by the lack of complete examples. Form 59 is a common Late Period form in the oasis (cf. Hope 2003: Fig. 11o), but continued to be produced into the Early Ptolemaic Period, and is also encountered within 3rd century contexts at Elephantine (Aston 1999a: Pl. 108, No. 2848). Possible parallels to Form 60 from the Nile Valley date to the 4th and 3rd centuries (Aston 1999a: Pl. 99, No. 2597; Marchand 2002a: Fig. 4a). Good parallels to Form 61 can be found at Elephantine, which date to the 3rd century (Aston 1999a: Pl. 103, No. 2718; Pl. 107, No. 2831; Pl. 108, No. 2862; Pl. 109, No. 2878), whilst a parallel from Kharga can be given a similar date (Marchand 2007: Fig. 36). Parallels to Form 62 are difficult to find, although similar vessels are found at both Thebes (Schreiber 2003: Pl. 15, No. 208) and Elephantine (Aston 1999a: Pl. 117, No. 3071), and which indicate that our vessel might have originally had handles.

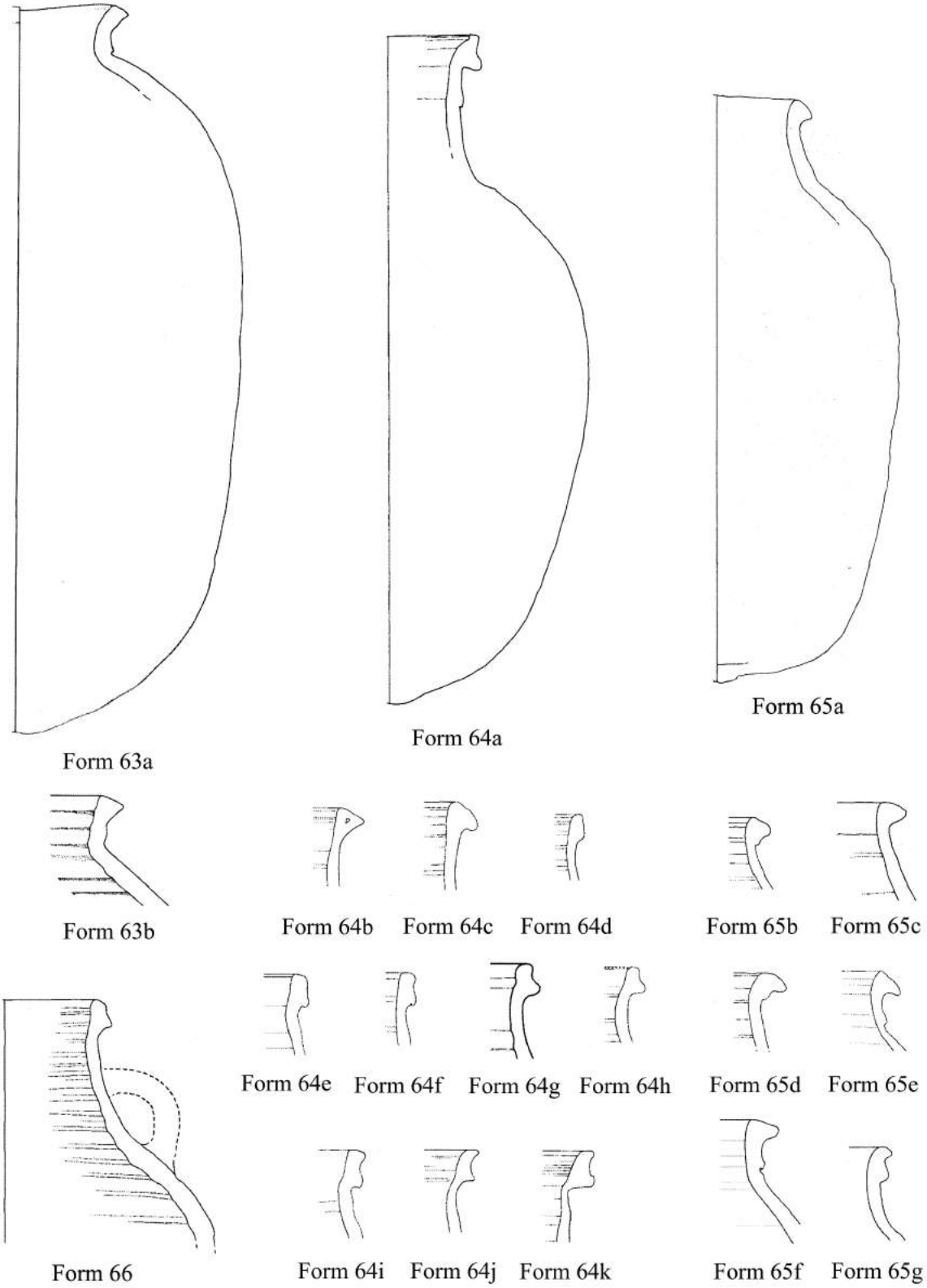

Form 63a
Form 64a
Form 65a
Form 63b
Form 64b
Form 64c
Form 64d
Form 65b
Form 65c
Form 64e
Form 64f
Form 64g
Form 64h
Form 65d
Form 65e
Form 66
Form 64i
Form 64j
Form 64k
Form 65f
Form 65g

FIGURE 3.49

FORMS 63–66 (FIGURE 3.49; PLATES B.17; B.20; B.26–B.27; B.35; B.40; E.1; E.27; E.43)

Forms 63–66 are ovoid jars with modelled rims and round bases. Form 63 has a very short neck and a distinct transition between the neck and shoulder. Form 64 has a tall neck and also has a distinct transition between the neck and shoulder. Form 65 has a medium-tall neck but has a less-defined transition between the neck and shoulder. These form categories are based on a small number of complete examples, since most examples are represented by only the rim and neck, and occasionally the upper body. Whilst there is inevitably some overlap between each of these forms, they serve to illustrate the three main types encountered within the corpus. Form 66 represents a handled variant of Form 65. Each form has been sub-divided according to rim-shape, and it is clear that there is a significant amount of variation, particularly for Forms 64 and 65. For the most part the rims are highly modelled and tend to range from triangular in profile (e.g. 64b) through to a double-ridged collar (e.g. 64k). These are some of the most common Ptolemaic forms encountered in Dakhleh, with twelve examples of Form 63, fifty-six examples of Form 64, and seventy examples of Form 65 included in the corpus. Form 66 is represented by only five examples, although it is entirely possible that other examples have gone undetected given the fragmentary nature of many of these vessels. Forms 63–66 are predominantly made in Fabric A1 (90%), whilst a small number of examples are made in Fabrics A5, A31, A2 and A32. Three-quarters of these vessels are cream-slipped, whilst a third of these are further decorated with black and/or red paint. The remaining vessels are either uncoated (19%) or red-slipped (5%). Interestingly, almost all of the red-slipped vessels are made in Fabric A5, although it is unclear whether this reflects a functional or chronological difference, or something else entirely. The majority of these vessels are quite large, ranging from 40–50 cm in height, with a maximum body diameter of 25–30 cm and a rim-diameter of 10–14 cm.

These forms appear to have been largely an Upper Egyptian product, with parallels from Elephantine (Aston 1999a: Pl. 110, No. 2913; Pl. 120, No. 3108), Thebes (Schreiber 2003: 110, Nos 176–177), and Abydos (Knoblauch and Bestock 2009: Figs 11a–b), which are all dated to the 3rd and 2nd centuries, yet with very few parallels from the north of Egypt. Parallels are also found in Kharga and have been dated to the end of the 4th or 3rd century (Marchand 2007: Fig. 39; cf. APPENDIX 3). Despite the fact that these broad parallels can been recognised, there is a noticeable difference between the rim shapes encountered in Dakhleh and those found in both Kharga and the Nile Valley.

FORM 67 (FIGURE 3.50; PLATES B.36; E.13)

Form 67 is a short-necked jar with a modelled rim and a rounded base. It has been sub-divided according to variations in rim- and neck-shape (67a–g). Some vessels display a smooth transition between the neck and shoulder (67a–d), whilst for other vessels this transition is much more distinct (67e–g). This is a very common Ptolemaic form with at least sixty examples included in the corpus. Form 67 vessels are mostly made in Fabric A1 (62%) or Fabric B3 (30%), with a few isolated examples in Fabrics A2 and A5. The majority of vessels are uncoated (71%), but red-slipped (16%) and cream-slipped (13%) examples do occur. The surfaces are usually discoloured and smoke-blackened as a result of their use as cooking vessels. Similar vessels have been found in Kharga (Marchand 2007: Fig. 37), as well as in the Nile Valley (Knoblauch and Bestock 2009: Fig. 11c; cf. APPENDIX 3) where they are attributed a Ptolemaic date.

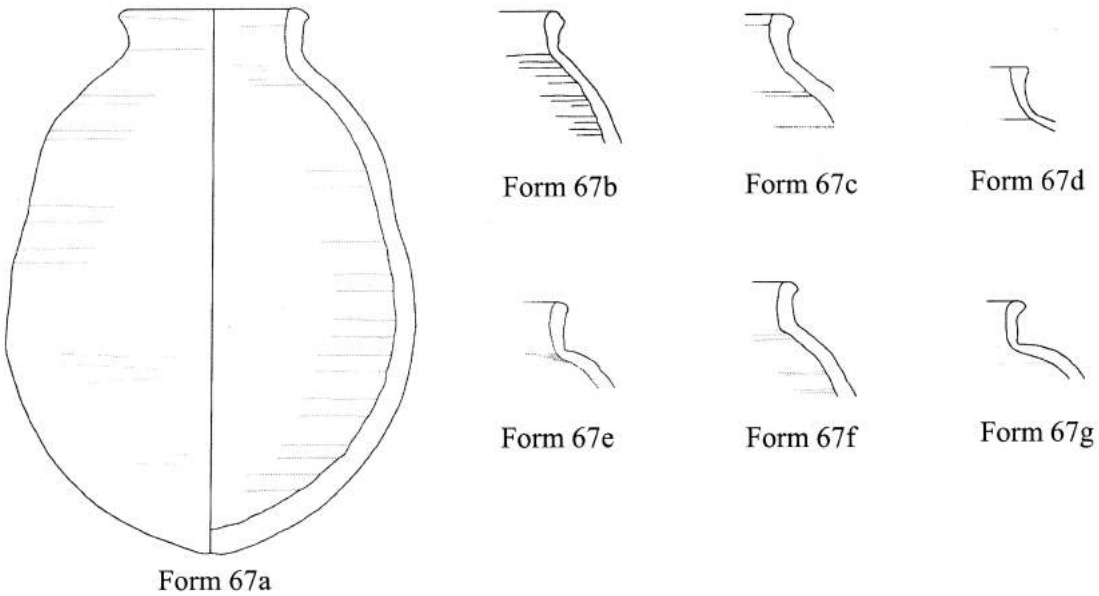


FIGURE 3.50

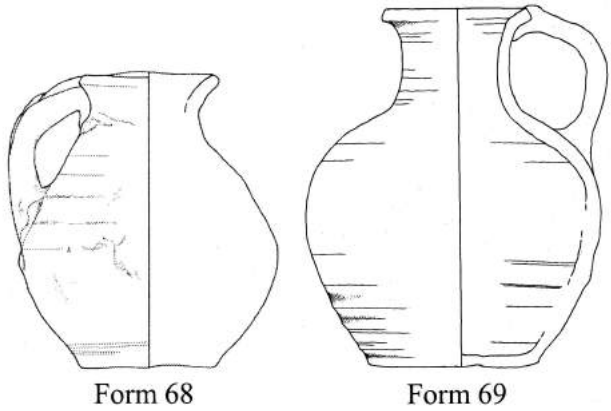


FIGURE 3.51

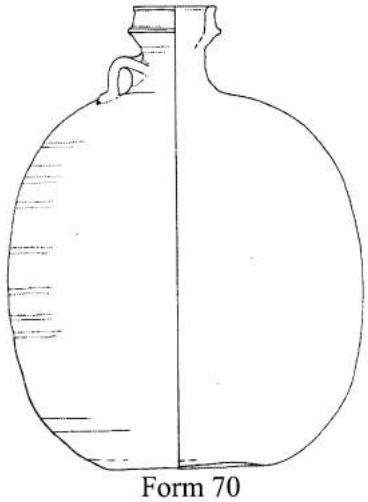


FIGURE 3.52

SINGLE-HANDLED JARS

FORMS 68–69 (FIGURE 3.51; PLATES B.15–B.16; E.31)

Forms 68 and 69 are necked jars with flat bases and a single vertical handle joined at the shoulder and the rim. Form 68 has a short neck and a simple rim, whilst Form 69 has a taller neck and a modelled rim. Two complete examples of Form 68 are included in the corpus, as well as two rim sherds from similar vessels. Form 69 is more common with at least fourteen examples in the corpus. Many of these are fragmentary, although a few complete vessels are known, and they display a distinct uniformity in size and form. Form 68 vessels are made in Fabric A1 and are uncoated. Form 69 vessels are made in Fabrics A1 or A2, with a single example in Fabric A28, and are mostly cream-slipped, with a few uncoated examples. Form 69 derives from the Greek *oinochoe* (cf. Sparkes and Talcott 1970: Fig. 14, No. 1613), which is a common form within Ptolemaic contexts in Egypt (Masson 2011: Fig. 80; Poludnikiewicz 1992: No. 2; cf. APPENDIX 3), although our form is a rather simplified version. Form 68 also appears to be of Greek origin, as parallels can be found in 3rd century contexts at Corinth (Pemberton 1989: Pl. 18, Nos 166–167).

FORM 70 (FIGURE 3.52; PLATE E.15)

Form 70 is a handled-jar with a short narrow neck, a collared rim and a flat base. A small vertical handle is attached at the shoulder and neck. Only one complete example of this form is included in the corpus, although there are also several rim sherds of similar form. These examples are made in Fabric A2 and are either red- or cream-slipped. Parallels to this form are difficult to find, although the shape of the rim is reminiscent of that encountered on a two-handled jar from Elephantine, which dates to the 3rd century BCE (Aston 1999a: Pl. 106, No. 2793). Despite the lack of obvious parallels, this form has been assigned a Ptolemaic date based on the associated pottery.

FORMS 71–73 (FIGURE 3.53; PLATES E.8 and E.44)

Forms 71–73 are necked jars with modelled rims, ring-bases and a single vertical handle attached to the shoulder and rim. Form 71 is an ovoid jar with a short neck and a square collared rim. Three complete examples are included in the corpus, although there are at least eight rim sherds of similar shape that also preserve part of a handle and which are probably similar in overall form. These vessels are made in Fabric A1 and are either uncoated or cream-slipped. Form 72 is a squat shouldered jar with a short neck and a modelled rim. A single complete example of this form is included in the corpus; this is made in Fabric A1, and is cream-slipped and decorated with black bands. Form 73 is an ovoid jar with a modelled rim and a tall wide neck. This form is also represented by a single complete example, which is made in Fabric A1 and is cream-slipped. Form 73 appears to be of Greek origin, as parallels can be found in 3rd century contexts at Athens (Rotroff 2006: Fig. 4, No. 24) and Corinth (Pemberton 1989: Fig. 4, No. 156). A broad parallel is also found in Egypt at Memphis, which is probably of similar date (Petrie 1909: Pl. 46, No. 62). Parallels to Form 72 can be found in Ptolemaic contexts in the Nile Valley (Aston 1999a: Pl. 98, No. 2584; Berlin 2001: Fig. 2.34, No. 19; Masson 2011: Fig. 90; cf. APPENDIX 3), but parallels to Form 71 are difficult to find.

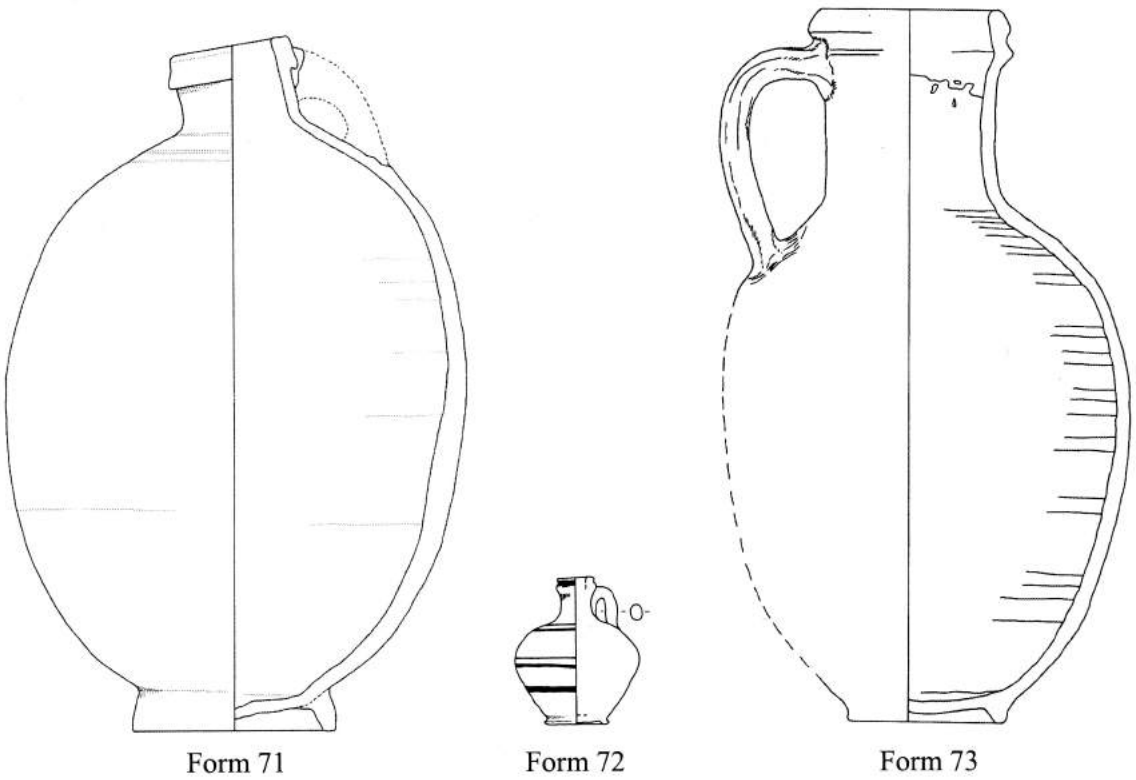


FIGURE 3.53

TWO-HANDLED JARS

FORM 74 (FIGURE 3.54; PLATES B.34 and E.25)

Form 74 is a two-handled necked jar with a spherical body, a modelled rim and a ring-base. It has been sub-divided according to variations in rim shape, which include a roughly formed rounded rim (74a) and a finer triangular rim (74b). Six examples of this form are included in the corpus. These are made in Fabric A1 or A2 and are all cream-slipped, apart from a single red-slipped example. This form derives from the Greek *amphora* or *pelike* (cf. Sparkes and Talcott 1970: Fig. 12, Nos 1445, 1455), but is also found within Ptolemaic contexts in the Nile Valley (Jacquet-Gordon *n.d.*: Fig. 21.3; Poludnikiewicz 1992: Nos 9–10; cf. APPENDIX 3). Furthermore, an example in bronze comes from a Late Ptolemaic tomb at Barkal in Nubia (Dunham 1957: Fig. 67, No. 74).

FORMS 75–76 (FIGURE 3.55)

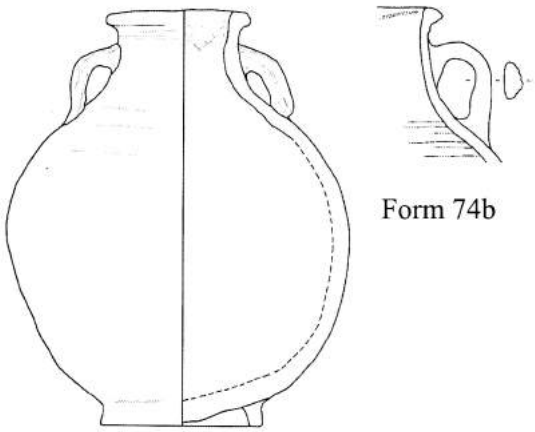
Forms 75 and 76 are short-necked ovoid jars with a modelled rim and an applied ring-base. They each have two small vertical handles attached to the shoulder. Form 75 has a distinct transition between the shoulder and the neck, whilst Form 76 has a less distinct transition. From 75 has been sub-divided according to the shape of the neck and rim, which includes a curving (75a) and a straight variant (75b). Three examples of Form 75 are included in the corpus, whilst Form 76 is represented by a single example. Form 75 vessels are made in Fabrics A1 or A2 and are either uncoated or cream-slipped. The Form 76 vessel is made in Fabric A1 and is uncoated. Direct parallels to these forms are difficult to find, although a vessel similar to Form 75, with a rounded rather than a ring-base, comes from a 3rd century context at Elephantine (Aston 1999a: Pl. 91, No. 2437).

FORM 77 (FIGURE 3.56; PLATE E.18)

Form 77 is a slender short-necked jar with a modelled rim, a rounded base and two small horizontal loop handles attached at the shoulder. A single example is included in the corpus; this is made in Fabric A1 and is cream-slipped and decorated with black bands. A somewhat similar vessel was discovered in a context of mixed date at Mut al-Kharab (Trench 20, Context 8), but this is not included in the corpus. Close parallels for this form are difficult to find. A series of neckless jars with a similar body shape are found in Late 3rd–2nd century contexts at Elephantine (Aston 1999a: Pl. 114, Nos 3005–3017), as well as in a 4th century context at Thebes (Schreiber 2003: No. 107); however, those vessels do not have handles.

FORM 78 (FIGURE 3.57; PLATES E.4 and E.10)

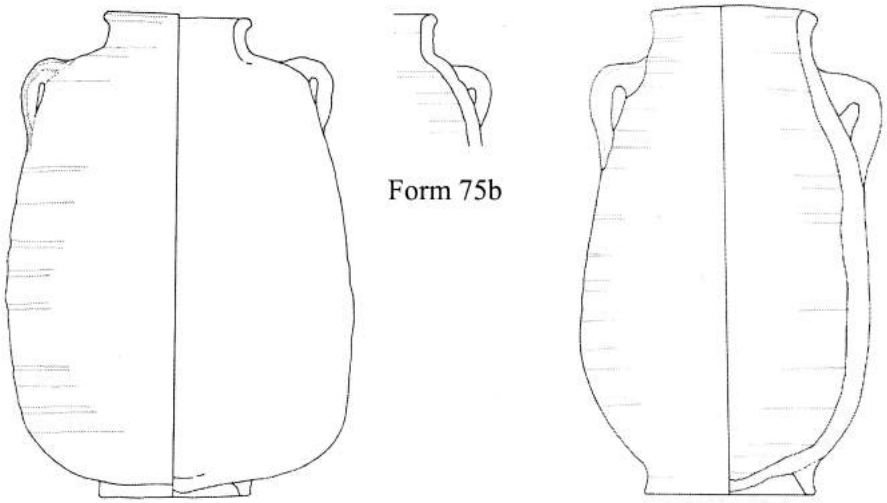
Form 78 is a two-handled tall-necked jar with a modelled rim and pointed/stump base. It has two vertical handles attached at the shoulder and at the neck just below the rim. Two examples of this form are included in the corpus; one of these is made in Fabric A1 and is cream-slipped and decorated, whilst the other is a miniature form, which is uncoated. Both vessels are much smaller than is typical for *amphora* made in Egypt during the Ptolemaic Period (cf. Aston 1999: Pl. 111, No. 2934), and given that they derive from tomb contexts it is likely that are votive *amphora*, made specifically for funerary use. This is supported by the fact that a close parallel of Ptolemaic date found at ‘Ain Dabashiya also comes from a tomb context and is even decorated in similar way to our example (Dunand *et al.* 2013: Figs 180–181). A broad parallel to the miniature vessel is found at ‘Ain Manawir, and is dated to the end of the 4th century BCE (Marchand 2007: Fig. 26).



Form 74b

Form 74a

FIGURE 3.54



Form 75b

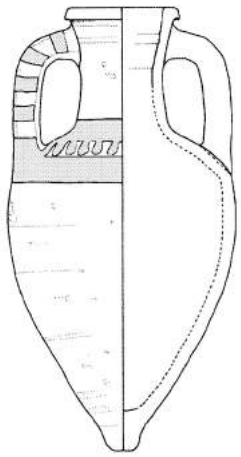
Form 75a

Form 76

FIGURE 3.55

Form 77

FIGURE 3.56



Form 78

FIGURE 3.57

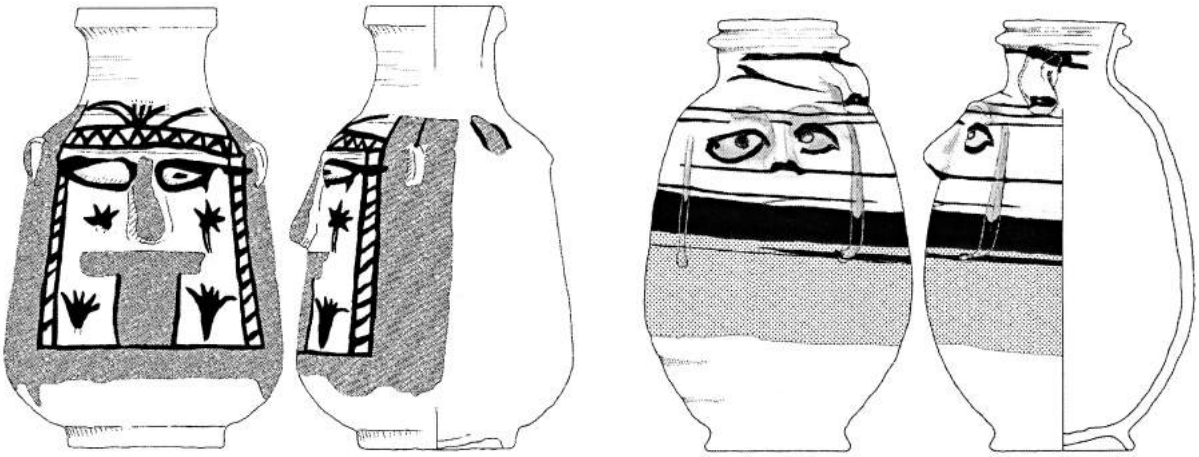


FIGURE 3.58

BES-VESSELS

FORMS 79–80 (FIGURE 3.58; PLATES B.2; B.37; B.44; B.50–B.51)

Due to their uniqueness, Bes-vessels are treated here as a separate category. Their basic form is that of a necked jar with a modelled rim and a ring-base; however, they are characterised by applied decorative features, which affect our impression of their overall form. In Dakhleh, Ptolemaic Bes-vessels come in two distinct forms; Form 79 has a bag-shaped body, a tall neck and a simple modelled rim, whilst Form 80 has an ovoid body, a short neck and a more elaborate collared rim. Form 80 is further sub-divided into a handled (Form 80a) and a non-handled type (Form 80b; cf. FIGURE 3.7.a). Form 79 is represented by a single complete vessel, as well as several fragmentary vessels, whilst Forms 80a and 80b are each represented only by a single complete example. These vessels are all made in Fabric A1, apart from the Form 80a vessel, which is made in Fabric A31. All of the vessels are cream-slipped and decorated. No direct parallels have been identified for these vessels; in fact, well-dated Ptolemaic Bes-vessels are basically unknown from the Nile Valley. A broad parallel to Form 79 is encountered in Bahariya, although the decoration is quite different (Fakhry 1938: 399, Pl. 71a; Hawass 2000: 77, 79, 161). Based on the find contexts and the associated material, it seems that Form 79 dates to the 3rd or 2nd century, whilst Form 80 is slightly earlier, perhaps late 4th or early 3rd century (cf. Gill *Forthcoming a*). A fragmentary Bes-vessel was also found in Trench 20 at Mut al-Kharab (Number **756**); the form of this vessel is unknown, but based on the context it probably dates to the 4th century (CHAPTER 2; cf. Gill *Forthcoming a*).

SPOUTED VESSELS

FORMS 81–84 (FIGURE 3.59: PLATES B.21; E.7; E.14; E.23; E.30)

Forms 81–84 are globular vessels with a modelled rim, an applied ring-base and an attached spout. The spout projects on angle from the shoulder and usually stands above the height of the rim. These forms are broadly similar, but are distinguished by differences in the shape of the body and the rim. Form 81 has an ovoid body and a squared rim, and is the most common form in this group with six examples in the corpus. Form 82 has a spherical body and a double-ridged collared rim; only a single example is included in the corpus. Form 83 has a bag-shaped body and a flattened rim; three examples are included in the corpus. Form 84 is also bag-shaped, but has a rolled rim; four examples are included in the corpus. These vessels are invariably made in Fabric A1 and are generally either

uncoated (60%) or cream-slipped (30%). One cream-slipped example is further decorated with a red rim-band (Number **289**), whilst an isolated red-slipped example appears to have been decorated with a cream rim-band (Number **1230**). There is also a unique inscribed vessel of Form 81 (Number **1040**), which bears six incised characters of an unknown script.

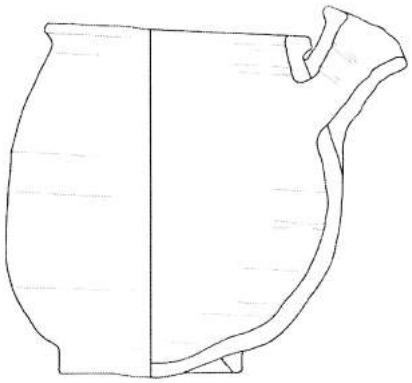
The majority of these vessels have been found in funerary contexts, which together with the fact that they are often stained with resin indicates that they probably functioned as embalming vessels. That such forms were predominantly used as funerary vessels is supported by the fact that similar forms have been discovered in tombs at both El-Deir (Brones 2010: Figs 273, 377; Dunand *et al.* 2013: Part 1, Figs 5–6, 17) and ʻAin Dabashiya (Dunand *et al.* 2013: Figs 159–160) in Kharga. These have been dated broadly from the Persian to Roman Period, but based on their similarity to the Dakhleh examples a Ptolemaic date is most likely. Interestingly, some of the vessels from Kharga are decorated with floral designs, which are not encountered amongst the Dakhleh examples, although the style of the decoration is indicative of a Ptolemaic date. Few parallels can be found outside of the oases, although one example of Late Ptolemaic date comes from Edfu (Michałowski *et al.* 1950: Fig. 198, No. 859). Significantly, a bronze vessel of very similar form was discovered within an Early Ptolemaic tomb at Meroë (Dunham 1957: Fig. 8, No. 49; cf. Török 2011: Pl. 13), which interestingly bears a Demotic inscription that recalls our inscribed vessel (Number **1040**). Whilst the script on the vessel from Dakhleh does not appear to be Demotic, the similarity between the two vessels does seem to point to a specific funerary role for this form. It also brings to mind the *hydria* found in the Hadra cemetery in Alexandria, which are also often inscribed (cf. Enklaar 1998a: Figs 12 and 14).

FORMS 85–86 (FIGURE 3.60: PLATES B.21; E.7; E.14; E.23; E.30)

Forms 85 and 86 are spouted vessels similar to the previous group, although these have footed rather than ring-bases. Form 85 has a rolled rim and is quite similar to Form 84, apart from the difference in the base-type. A single example of this form is included in the corpus, which is made in Fabric A1 and is uncoated. Form 86 is a squat bag-shaped jar with a direct rim and a small spout projecting at angle from the shoulder. The shape of the spout is unknown, as the single example of this form is missing the spout. This vessel is made in Fabric A1 and appears to have been cream-slipped. A very similar vessel is found elsewhere in Dakhleh, although it does not have a spout (Form 50). Direct parallels are not known for these forms.

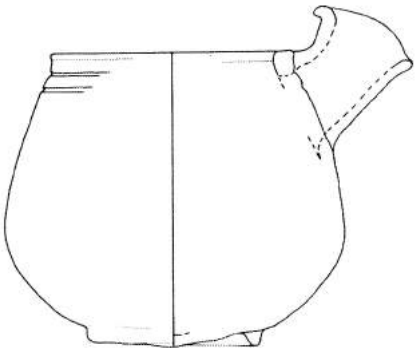
FORM 87 (FIGURE 3.61; PLATES E.3; E.7)

Form 87 is a spherical jar with a short neck, a modelled rim, a footed base and an attached spout. The small spout projects at an angle from the shoulder of the vessel. A single complete example of this form is included in the corpus, which is made in Fabric A2 and is cream-slipped. An almost identical spout was discovered within a Ptolemaic context at Mut al-Kharab, which might derive from a similar vessel (cf. APPENDIX 3). Direct parallels to this form are difficult to find, although a somewhat similar vessel of Early Roman date comes from North Tomb 6 at Ismant al-Kharab (Hope 2004a: Fig. 5d). That vessel has a more elaborate rim, a ring-base and is painted with geometric designs; however, the overall form is comparable. The fact that both vessels come from tomb contexts might point to a specific funerary function for this form, much like the spouted vessels discussed above (Forms 81–84).

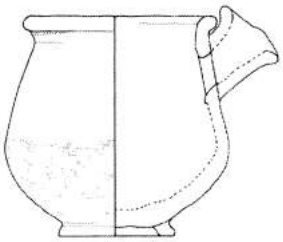


Form 81

Form 82

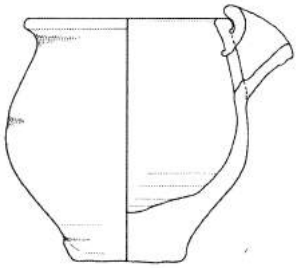


Form 83



Form 84

FIGURE 3.59



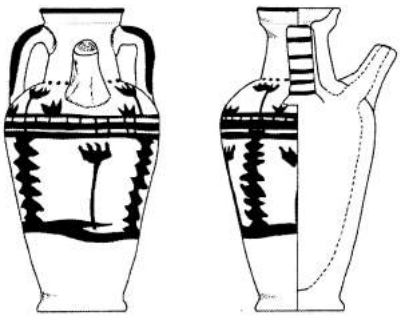
Form 85

Form 86

FIGURE 3.60

Form 87

FIGURE 3.61



Form 88

FIGURE 3.62

FORM 88 (FIGURE 3.62; PLATES E.7; E.9)

Form 88 is a slender necked-jar with a rim modelled to form an internal ledge. It has two vertical handles attached at the shoulder and at the neck just below the rim, and a narrow spout is attached to the shoulder. This form is represented by a single complete example, which is made in Fabric A2 with decoration in black over an uncoated surface. Possible parallels to this form are found in Upper Egypt and date to the Early Ptolemaic (Jacquet-Gordon *n.d.*: Figs 21.5, 21.6; Jaritz and Rodziewicz 1994: Fig. 12, No. 161). A fragmentary vessel from Dush in Kharga, which is dated to the 3rd or 2nd century, has a comparable rim and handles and might be of similar form (cf. Marchand 2007: Fig. 27). Interestingly, this vessel appears to have been decorated in a very similar way to our vessel, which suggests that the two were perhaps products of the same workshop (Gill *Forthcoming c*). Like the spouted vessels discussed above, this vessel comes from a funerary context and appears to have been used as an embalming vessel, as a roll of linen was found to be plugging the spout.

ASYMMETRICAL VESSELS

FORM 89 (FIGURE 3.62; PLATE B.24)

Forms 89a and 89b are asymmetrical jars with an offset spout and a horizontal loop-handle that is attached at the top of the body and at the rim. Both forms are represented by single examples within the corpus. Form 89a has a squat ovoid body, a wide-mouthed spout and a tall ring-base. The handle has been modelled to imitate a twisted rope, which suggests that the form might derive from a metal prototype. Form 89b has a narrow vertical spout and a small arched handle, although the base is unknown as only the upper part of the vessel is preserved. The Form 89a vessel is made in Fabric A1 and is red-slipped, whilst the Form 89b vessel is made in Fabric B3 and is also red-slipped. These forms clearly derive from the Greek *askos* (cf. Sparkes and Talcott 1970: Fig. 14, No. 1727), although direct parallels are difficult to find. There are a few broad parallels to this form from the Nile Valley; however, like the examples from Athens, these generally have a 'pointed tail' where the handle is attached to the body (Budka 2010: Fig. 177, Reg. 201; Myśliwiec 1994: Fig. 2; cf. APPENDIX 3).

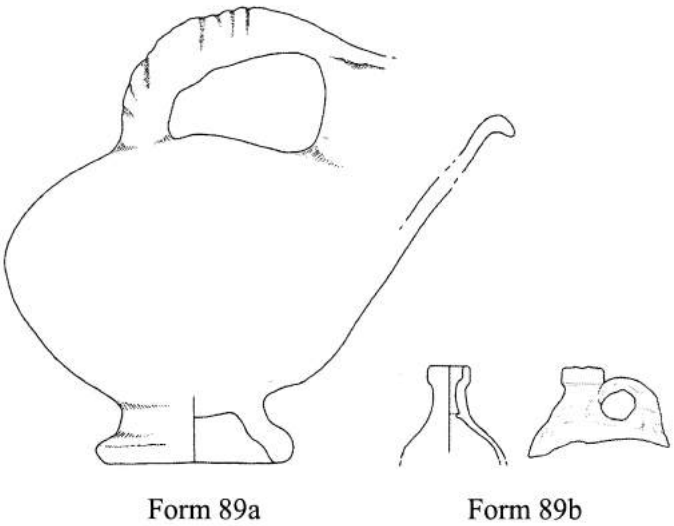


FIGURE 3.63

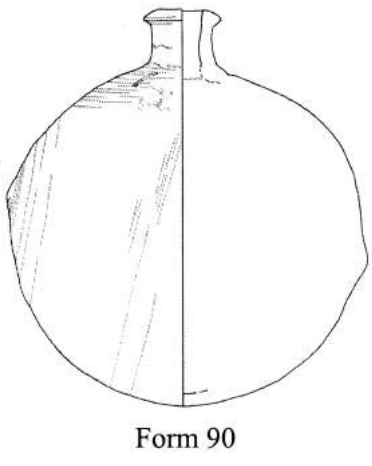
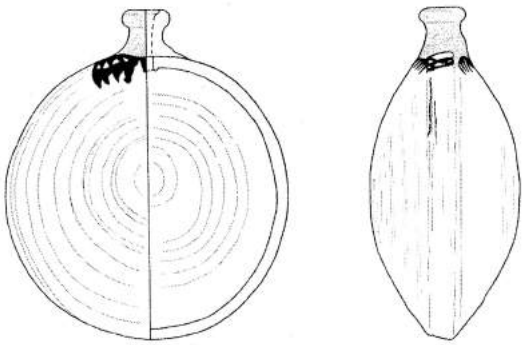
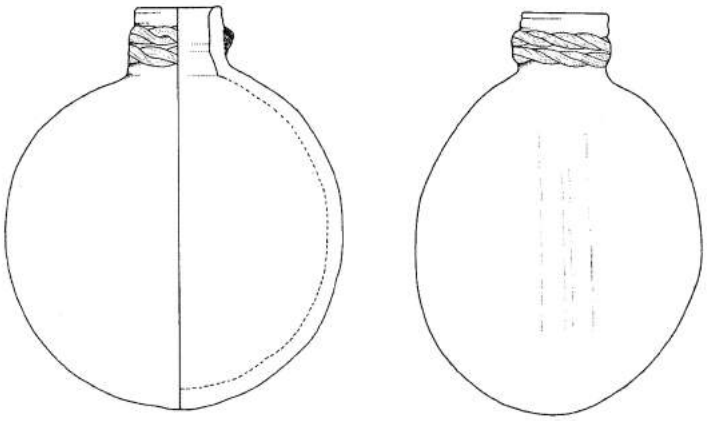


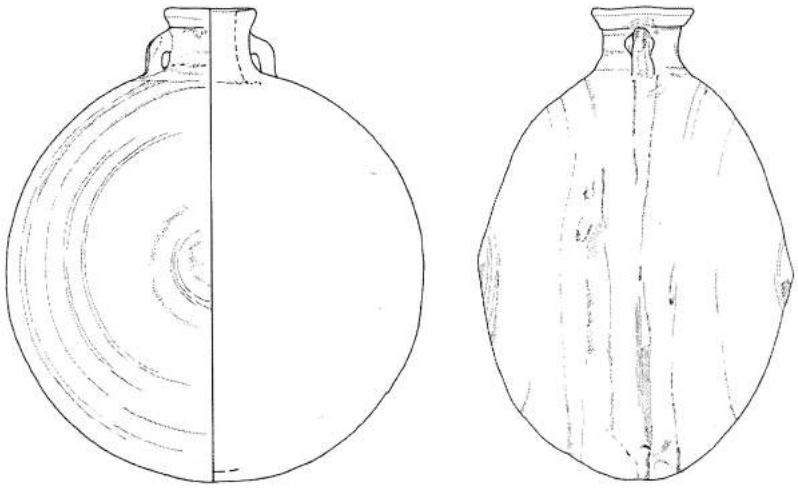
FIGURE 3.64



Form 91



Form 92



Form 93

FIGURE 3.65

MISCELLANEOUS FORMS

FORM 90 (FIGURE 3.64)

Form 90 is a roughly spherical vessel with a short narrow neck and a modelled rim. It has been made from two halves, joined with a vertical seam, and with an attached neck. This form, also known as a flask, is one of a series of vessels (Forms 91–98 below) that appear to have originated in the Southern Oasis (Hope 2000: 189–190; see also Gill *Forthcoming d*). Two examples of this form are included in the corpus, both of which are from tomb contexts. One of these is made in Fabric A1 and is uncoated,

whilst the other is made in Fabric A2 and is red-slipped. Close parallels to this form come from 'Ain Dabashiya (Dunand *et al.* 2013: Figs 166, 172–173) and El-Deir (Brones 2010: Fig. 380) in Kharga, which are also from tomb contexts. These have been broadly dated to the Ptolemaic or Roman Period based on comparison with the examples from Dakhleh (cf. Hope 2000), but given that this dating can now be refined (Gill *Forthcoming d*), the vessels from Kharga should be ascribed a Ptolemaic date. A further parallel comes from Dush in the south of Kharga, which has been dated to the late 4th or early 3rd century (Marchand 2007: Fig. 34).

FORMS 91–93 (FIGURE 3.65; PLATE E.24)

Forms 91–93 are vessels with elliptical bodies and short necks. Like Form 90, they have been made from two halves, with a vertical seam and an attached neck. These vessels are also known as flasks and appear to have originated in the Southern Oasis (Hope 2000: 189–190; see now Gill *Forthcoming d*). Form 91 has a short narrow neck and a rounded rim. A single example is included in the corpus, which is made in Fabric A2 and which is red-slipped and decorated. Form 92 has a short wide neck and a direct rim with a slight ridge on the exterior (the vessel illustrated has rope tied around the neck). This form is also represented by a single example, which is made in Fabric A1 and is red-slipped. Form 93 has a short wide neck and a modelled rim with a flattened top, as well as two small vertical handles attached at the junction of the neck and shoulder. This again is represented by a single example, which is made in Fabric A1 and which is likewise red-slipped. Few direct parallels can be found for these forms. A vessel similar to Form 91 comes from El-Deir in Kharga (Brones 2010: Fig. 276), whilst a parallel to Form 92 can be found in the Nile Valley (Brunton 1930: Pl. 41, No. 17). Both of these examples should probably be assigned a Ptolemaic date. Interestingly, all three of our forms together with the parallel examples derive from funerary contexts. This suggests that such forms were used predominantly as funerary vessels, perhaps for holding oil or resin used in the embalming process. This is supported by the fact that Number **932** (Form 93) was encrusted with resin and pieces of linen.

FORMS 94–98 (FIGURE 3.66; PLATES B.22–B.23; E.12)

Forms 94–98 are vessels with barrel-shaped bodies, short necks and modelled rims. Like the previous group of forms, they are made from two halves, with a vertical seam and an attached neck. These forms, also known as kegs or *siga*, have a long history of production in the oasis, with an initial appearance during the Late Period and continued production throughout the Ptolemaic and Roman periods down to modern times (Hope 2000: 189; see now Gill *Forthcoming d*). For the Ptolemaic period, a difficulty arises in that very few complete examples of these forms have been discovered and none from well-dated contexts. Most of the examples are represented only by the rim and neck, so we must rely on parallels to understand what the complete forms looked like. Five distinct forms have so far been identified. Form 94 has a short-medium neck with a roughly formed rounded rim. This form is relatively common with nine examples included in the corpus. Form 95 is rather similar to Form 94 but has a tapering neck and a slightly flaring rim. A single example of this form is included in the corpus. Form 96 has a short narrow neck and a distinctive modelled rim that flares outward and then tapers inward to a point. This form is represented by ten examples in the corpus. Form 97 has a very short wide neck and a distinctive modelled rim with a double-ridged collar. Five examples are included in the corpus. Form 98 also has a collared rim, but has a slightly taller neck. Four examples of this form are included in the corpus. The majority of these vessels are made in Fabrics A1 or A2, and less frequently in Fabrics B3 or A31. They are usually either uncoated or cream-slipped; however, a few vessels exhibit a dark grey/black surface, which appears to be a result of the firing process and/or use rather than a deliberate surface treatment. Despite the fact that no complete examples have

been found, an impression of the size of these vessels can be gained from Number **1005**, which is one of the better preserved examples.

Good parallels can be found for these forms from both Kharga and the Nile Valley (cf. APPENDIX 3). Form 94 is broadly comparable to kegs of Late Period date found in the oasis and elsewhere, but whilst the Late Period vessels usually have a very tall neck, during the Ptolemaic Period the necks become much shorter (Gill *Forthcoming d*). Form 96 finds numerous parallels in Kharga, which are generally dated to the 4th century (Marchand 2000b: Figs 5–6; 2007: Fig. 17); however, it is clear that this form continued to be produced into the 3rd century at least, based on the date of the pottery associated with our examples (cf. Number **136**), as well as a parallel from Elephantine (Aston 1999a: Pl. 106, No. 2799). Interestingly, many of the examples from Kharga are cream-slipped and decorated with geometric and floral designs in black and/or red (e.g. Marchand 2000b: Fig. 5), which I would suggest points more to a 3rd century date for these vessels. Decoration has so far not been encountered on the kegs from Dakhleh. Form 97 also finds parallels in Kharga, which are once again dated to the end of the 4th century (Marchand 2007: Figs 28–29); however, parallels can also be found in the Nile Valley, which are dated to the 3rd century (Aston 1999a: Pl. 105, No. 2754; Masson 2011: Figs 94–95). A flask with a similar rim to Form 98 comes from the south of Kharga (Marchand 2007: Fig. 33), which raises the possibility that our Form should be identified as a flask rather than a keg.

FORM 99 (FIGURE 3.67)

Form 99 is a large, irregular thick-walled basin. It is handmade, but might have been roughly formed on a slow wheel. At least twelve examples are included in the corpus; however, fragments of such vessels are regularly found in Ptolemaic contexts. The rim-diameters of such vessels range from 30–50 cm, and they usually have a height of 10 cm or more. This form is almost exclusively made in Fabric A4, with one example in A1, and is generally uncoated, although it can be cream-slipped. A parallel from Elephantine dates to the 4th century (Aston 1999a: Pl. 84, No. 2271).

FORMS 100–101 (FIGURE 3.68; PLATE B.14)

Forms 100 and 101 are stands. Form 100 is a ring-stand and has been sub-divided into three common types, although a few additional types can be found in the corpus. Form 100a has an angular profile, with a distinct modelled ridge on the exterior base. Form 100b is similar, but is shallower with a more compressed profile. Form 100c has a more rounded profile. Form 100a is represented by nine examples in the corpus, whilst Forms 100b and 100c are represented by three and two examples respectively. All of these vessels are made in Fabric A1, and are either uncoated (50%) or cream-slipped (50%). Parallels to Form 100c are found at Elephantine, which date to the 3rd century (Aston 1999a: Pl. 92, No. 2465; Pl. 93, No. 2495; Pl. 105, No. 2775); however, parallels for Forms 100a–b are difficult to find. Many examples of ring-stands are published amongst the Elephantine material, yet none have the distinct profile displayed by Forms 100a–b (cf. Aston 1999a: Pl. 92, No. 2468).

Form 101 is a tall pot-stand. Three examples are included in the corpus; two of these are made in Fabric A1 and both are uncoated, whilst the third is made in Fabric A4 and is cream-slipped. A parallel is found at Elephantine and is dated to the 3rd century (Aston 1999a: Pl. 91, No. 2436).

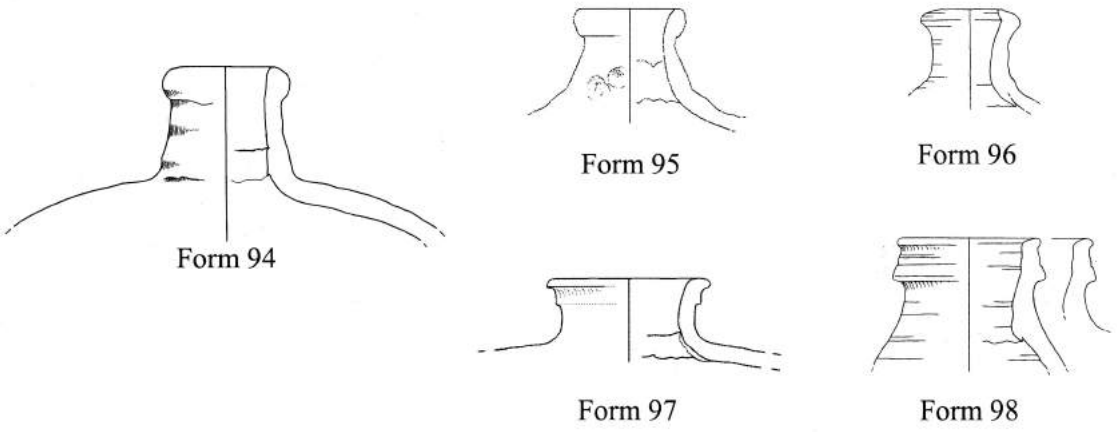


FIGURE 3.66

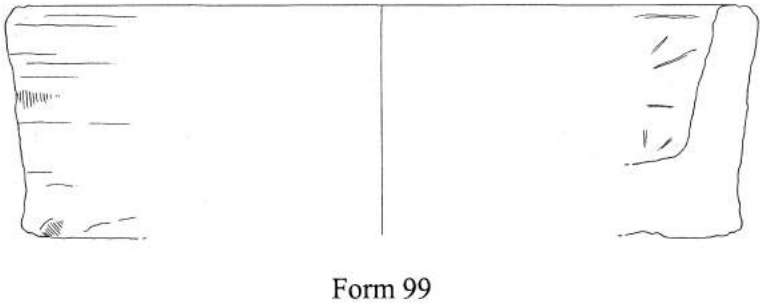


FIGURE 3.67

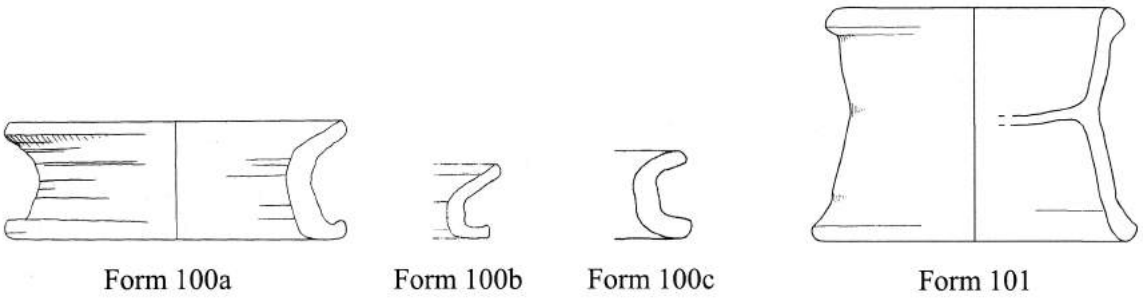


FIGURE 3.68

DISCUSSION

For the most part, there are similarities between the Ptolemaic forms encountered in Dakhleh and those found in the Nile Valley, particularly in Upper Egypt, as well as those found in Kharga Oasis; however, there does appear to be some regional variation. The forms most frequently encountered in the corpus are small bowls with incurved rims (Forms 9 and 11), footed bowls with modelled rims (Forms 24–25), bowls with modelled rims and ring-bases (Forms 29–32), large jars with modelled rims (Forms 63–67), and spouted vessels (Forms 81–85).

External influences can be clearly seen, for example in the carinated bowls that appear to have been inspired by Achaemenid-style silver bowls (Forms 36–37 and 41), and in the imitation of common Hellenistic forms; however, these influences are also seen in the Nile Valley and it is likely that they quickly became part of the standard Ptolemaic repertoire. Egyptian potters had already been exposed to Greek pottery prior to the Ptolemaic Period, through increased Mediterranean trade and the establishment of a Greek settlement at Naukratis already during the late 7th century BCE (cf. Sullivan 1996). At the end of the Late Period, and in the Early Ptolemaic Period, we witness both a continuation of certain traditional Egyptian forms, as well as the introduction of many Greek forms (Masson 2011; Marchand 2013), the adoption of which probably largely took place in the workshops of Alexandria before filtering out to the *chora*.

The influence of Hellenistic pottery on the Dakhleh pottery industry is clear, but we should be careful in assuming that the oasis potters were directly copying such products. Whilst a small number of foreign imports are known from Ptolemaic contexts at Mut al-Kharab, the oasis potters probably did not rely solely on such vessels for inspiration, rather they followed the broad trends established in the Nile Valley and in particular Upper Egypt. Indeed, these Hellenistic influences can be seen throughout the Nile Valley and seem to reflect a much broader phenomenon of pottery innovation and development witnessed throughout the Eastern Mediterranean (cf. Fenn and Römer-Strehl 2013).

Further to this point is the issue of metal prototypes, which are known to have had a direct influence on the Greek ceramic tradition (Miller 1997: 135ff; Vickers 1985). In contrast to pottery, metal vessels are rarely encountered in the archaeological record due to their comparative value, as well as their ability to be melted down and reused, unlike their ceramic counterparts. Thus it is not surprising to find that for the Ptolemaic Period in Dakhleh we have only a single fragmentary bronze vessel from 32/390-E1-1 (Site 04). Outside Dakhleh metal vessels are also very rare, although there is a cache of silver vessels from Tukh el-Quarmous in the eastern Nile Delta (Pfrommer 1996: 174, Fig. 5), and also a range of metal vessels from the royal tombs at Meroë (Dunham 1957), both of which offer some interesting parallels. For example, some of the carinated bowls from Mut al-Kharab (Forms 12, 36 and 41) are very similar to the silver bowls found at Tukh el-Quarmous (Pfrommer 1996: 174, Fig. 5). Furthermore, the spouted vessels found in Dakhleh (Form 81) closely resemble a bronze spouted vessel found at the cemetery of Begarawiya South at Meroë (Dunham 1957: Fig. 8, No. 49; Török 2011: Pl. 13). Obviously, metal vessels were largely objects for the elite, but it does raises the question of to what extent such vessels were used in Dakhleh and how this might have impacted on the Ptolemaic pottery tradition in the oasis.

In the Ptolemaic Period we see a noticeable divergence from what had been previously produced. Ptolemaic pottery contrasts with that of the Late Period in terms of elaboration; whereas simple forms dominate Late Period assemblages, in the Ptolemaic Period ring-bases become much more common, as do complex rims and the addition of handles. Comparable morphological changes are evident in pottery assemblages from Nile Valley sites (cf. Masson 2011; Marchand 2013). This is probably due to foreign influences, as most of the complex forms are of Hellenistic origin, but they soon become part of the established tradition in Egypt.

3.8 General Discussion

In many ways the pottery industry in Ptolemaic Dakhleh was closely connected to that of the Nile Valley. We encounter a similar range of forms and surface treatments throughout both regions. In particular, the decorative styles found in Dakhleh seem to be most similar to those of the Theban region, which is perhaps a reflection of both geographical proximity and an administrative connection between the two regions. Despite the similarities with the Theban region and the Nile Valley in general, a certain amount of local variation is apparent within the Dakhleh pottery industry. This is

particularly evident in the use of local oasis fabrics, but can also be seen to a certain degree in the style of the painted decoration favoured by the oasis potters; the floral and geometric designs popular in Dakhleh are broadly similar to those encountered in Kharga Oasis, in the Theban region, and elsewhere in the Nile Valley, and yet close parallels are difficult to find. This difference is further emphasised by the homogeneity of painted decoration within Dakhleh itself (Gill *Forthcoming c*). Arguably, the most obvious manifestation of a distinctive Dakhleh style can be seen in the Ptolemaic Bes-Vessels (Forms 79–80). Unlike their Late Period counterparts, for which parallels are found in the Nile Valley, the Ptolemaic examples appear to be unique to the oasis (Gill *Forthcoming a*).

There is a notable difference between the range of pottery types encountered at Mut al-Kharab and those found at other Ptolemaic sites in the oasis. Some of this difference should probably be attributed to the fact that in the case of Mut al-Kharab we are dealing with pottery from large-scale excavations, whereas at other sites the pottery derives largely from surface collection and from limited testing. It is possible though that this difference is a reflection of the status of Mut al-Kharab as a major temple complex within what was probably the largest settlement in the oasis and almost certainly the capital. It stands to reason that a major pottery workshop was located here, and although pottery was probably also produced at other sites in Dakhleh, the workshop at Mut al-Kharab would likely have produced a greater range of pottery types and potentially better quality products, in order to meet the demands of the local elite, including the priesthood, administrative officials and other individuals of high status.

Certain features characterise the Ptolemaic pottery tradition in Dakhleh. There is a strong preference for cream-slipped vessels, which stands in stark contrast to the Late Period, for which such surface treatment is rare, as well as the Roman Period, for which red-slipped vessels are much more popular. Painted decoration occurs relatively frequently during the Ptolemaic Period, and belies Berlin's (2013: 230) recent statement that 'Ptolemaic pottery was rarely decorated, so it was not a vehicle for artistic or symbolic representation'. Simple linear designs begin to appear already during the 4th century, usually painted in black on uncoated surfaces, and by the Early Ptolemaic Period a substantial change can be seen, with the introduction of geometric and floral designs and a clear preference for black and red painted decoration, almost always on a cream slip. Whilst the range of decorative motifs encountered in the corpus is rather broad, certain design combinations occur more frequently than others, which implies that the potters were working from a pre-existing set of designs or 'pattern book' (Gill *Forthcoming c*). In general, these changes are consistent with the broad developments witnessed in the pottery tradition of the Nile Valley (Aston 1999a: 282; Schreiber 2009: 138–139). The particular combination of black and red decoration on a cream slip is not unique to Dakhleh, as it is also encountered at Elephantine (cf. Aston 1999a: 290, No. 2525) and at Thebes (cf. Schreiber 2003: 84–85, Nos 209–210); however, in the oasis there appears to have been a distinct preference for this combination. Another diagnostic feature of Ptolemaic pottery in the Nile Valley is the production of imitation black-polished wares and similar products were also manufactured in Dakhleh (cf. Gill 2012a).

Clear changes can also be seen in the types of fabrics utilised by the oasis potters. In the Ptolemaic Period, we see a continued use of Fabric A1, as well as its variants A2 and A4, yet there is a noticeable decrease in the use of Fabric B1/B10/B15, which was much more popular during the Late Period. A hallmark of the Ptolemaic Period is the use of Fabric B3, which appears to have been used for the first time during this period. It was clearly a preferred choice for cooking-vessels, although it was also occasionally used for kegs, and it continued to be used in the production of cooking-vessels throughout the Early Roman Period.

The introduction of Hellenistic forms is a key feature of the Ptolemaic pottery tradition in Dakhleh, and there is a general trend of increased elaboration, with features such as handles, ring-bases and modelled rims becoming increasingly common. Whilst isolated features of the Late Period pottery tradition do indeed survive, the Ptolemaic Period is marked by a significant shift in the range of forms

being produced, and in the choice of wares and decoration. This shift was by no means sudden; there was certainly a period of overlap in the 4th century, at which time we see aspects of Ptolemaic decoration beginning to develop, but by the late 3rd century the diagnostic features of the Ptolemaic pottery tradition are well and truly established. The transition between the Ptolemaic and Roman periods is likewise indistinct. Certain Ptolemaic forms continued to be produced during the Early Roman Period, albeit with subtle variations, whilst the decoration encountered during this period is broadly reminiscent of Ptolemaic decoration in terms of the choice of colours and the range of designs. These developments reflect the broad trends witnessed in the Nile Valley, as well as more widely in the Eastern Mediterranean, in that we see a wide-spread adoption of Hellenistic forms and wares, along with a continuation of local tradition.

Our understanding of Ptolemaic pottery in Dakhleh has improved greatly since the DOP conducted its survey of the oasis. I have identified the key features of the Ptolemaic pottery tradition and it is now possible to distinguish pottery of Ptolemaic date from that of the Late and Roman periods respectively. I can now propose new dates for a substantial amount of the pottery collected during the DOP survey, which in turn has enabled new dating to be proposed for a large number of sites. As a result, there are now significantly more Ptolemaic sites identified in Dakhleh than had previously been recorded, which raises all sorts of issues about the nature of Ptolemaic activity in the oasis. Indeed, this is the subject of the following chapter.

CHAPTER 4

PTOLEMAIC SITES IN DAKHLEH OASIS

...unless there is some definite reason for assigning a site to one or another period, Roman/Christian is usually the better designation.

Mills (1981: 182).

4.1 INTRODUCTION

My analysis of the Ptolemaic pottery from Mut al-Kharab, along with the re-examination of pottery collected during the survey of the oasis by the DOP, has led to the creation of a site catalogue that comprises seventy-two Ptolemaic Period sites (APPENDIX 4). This number stands in contrast to the seventeen Ptolemaic sites originally identified by the DOP (Churcher and Mills 1999: 260–263) and suggests that the increase in population that is thought to have occurred in the Roman Period had already begun during the Ptolemaic Period.

Based on the evidence presented in the site catalogue it is possible to gain an understanding of the overall distribution of Ptolemaic sites in the oasis, as well as the types of activities that took place at those sites. This in turn enables us to reconstruct a picture of the settlement pattern in Ptolemaic Dakhleh. The results of this analysis will then be used in conjunction with evidence from the other oases of the Western Desert, in order to ascertain whether a comparable situation existed throughout the region (CHAPTER 5).

4.2 STRUCTURE OF THE CATALOGUE

Each site in the catalogue is identified by a Site Number, which has been assigned on a consecutive basis beginning in the north-west corner of the oasis and continuing more-or-less in a south-easterly direction. The result is that sites located in close proximity to one another are listed alongside each other within the catalogue, which enables the reader to gain a clearer understanding of the relationships between them. Other identifiers are listed immediately after the Site Number, including the DOP reference number (cf. Mills 1979a: 167–168), and where applicable, the modern Arabic name and/or the ancient name (italicised). The relevant Site Group (cf. below) is provided in parentheses. The Ptolemaic evidence from each site has been described in as much detail as possible, although this varies greatly from site to site. I have also included a brief summary of the evidence from other periods for the sake of completeness.

The information presented in the catalogue (APPENDIX 4) derives largely from unpublished field notes. These were compiled during the initial survey of the oasis by various members of the DOP, with copies currently kept at the DOP dig-house in Dakhleh Oasis. The amount of detail included in the field notes varies greatly from site to site, and is a reflection of the state of preservation, the extent to which the site has been explored and the specialisation of the person who recorded the site. I have also utilised the annual reports from the survey, which were published in the *Journal of the Society for the Study of Egyptian Antiquities* from 1979 onwards. These reports were mostly based on the unpublished field notes, although additional information was sometimes included. A number of other relevant papers can be found in the *Dakhleh Oasis Project Monograph Series* and have also been utilised here. During field seasons in 2008, 2009 and 2011, I was able to personally visit a number of

sites (Sites 22, 26, 43, 45, 46, 50, 53, 55 and 69) and thus the catalogue entries for these have been augmented by my own observations.

4.3 Site Identification

The method by which an individual site is distinguished here is largely determined by the degree of preservation and by the interpretations of the various members of the DOP who were responsible for recording these sites during the survey. The result is that in some cases the term 'site' refers to a single location that incorporates multiple distinct elements, such as a temple, settlement and cemeteries (for example Ismant al-Kharab; Site 53), whilst in other cases these individual elements are each distinguished as separate sites (for example Sites 45 and 46, or Sites 61 and 62). The strategy employed by the DOP is to assign a separate distinguishing number to each feature within a given site (Mills 1979a: 168); however, this has not been used consistently across the oasis. Here I have chosen to use the site designations that were assigned during the survey and published in the DOP Index (Churcher and Mills 1999), in conjunction with my own numbering system.

In order to address any issues that may arise from differences in how a 'site' is defined, I have used two distinct, but connected, approaches to analysing the evidence. The first approach focuses on individual site elements, and examines the various types, such as cemeteries, settlements and temples, and the frequency with which they occur throughout the oasis (Chapter 4.4). The second approach focuses on site distribution and examines the proximity of sites to one another, in order to determine individual site groups or communities (Chapter 4.5). By using these two approaches in conjunction, it is possible to largely avoid the inherent bias that stems from processes of site preservation and interpretation.

The Ptolemaic sites presented in Appendix 4 are dated primarily through an analysis of the ceramic remains, with the addition in some cases of inscriptional and/or numismatic evidence. Many of the sites are dated solely on the basis of the surface pottery, and for these sites I have assumed that the presence of Ptolemaic pottery on the surface is indicative of a Ptolemaic phase of use. We should be aware of this assumption, particularly when the number of Ptolemaic sherds on the surface is limited to only one or two examples, since pottery can easily move from one site to another through human intervention. This being said, I have included several sites in the catalogue for which the dating is not entirely certain, but I have also clearly outlined both the quality and quantity of the evidence for each site, along with any concerns that I might have about the dating of this evidence.

A number of sites are identified as Ptolemaic in the published literature but have not been included in Appendix 4. For instance, six of the seventeen Ptolemaic sites in the DOP Site Index are not included here (cf. Churcher and Mills 1999: 260). This is due to one of two reasons; either there is insufficient evidence upon examination to argue for a Ptolemaic date, or subsequent work has shown this identification to be invalid. The sites in question are:

32/405-A2-1

This is a small mud-brick temple, which shows evidence for at least three building phases and is included in the list of Ptolemaic Period sites in the DOP Site Index (Churcher and Mills 1999: 260). Mills (1981a: 182) reports that pottery found at the site can be attributed to all periods from Dynasty XXVI through to the Christian Period; however, after examining the pottery records and drawings for this site, I am unable to confirm the presence of any Ptolemaic pottery and thus I cannot assign a Ptolemaic date for this site. Given that other mud-brick temples have been discovered in the oasis, which can in fact be dated to the Ptolemaic Period, it would not be unexpected to find a Ptolemaic phase of occupation at this site, although further investigation is needed to confirm this.

31/435-D5-2, 'Ain Tirghi

This is a cemetery of approximately two-hundred tombs, which is reported as being occupied from the Second Intermediate Period through to the Late Roman Period (Frey 1986: 92; cf. Churcher and Mills 1999: 260). Tomb 34 appears to have been reused and yielded the remains of forty-three individuals, including two intact burials in ceramic coffins at floor level. Several vessels were found associated with these burials and were initially dated as either Late Period or Ptolemaic (Frey 1986: 93); however, based on the photographs (Frey 1986: Pl. VIa) these vessels do not appear to be Ptolemaic. Nor can any other recorded pottery from the site be assigned a Ptolemaic date.

33/390-M5-2, El-Qasr

This site was originally identified as the location of a temple, as in situ stone door jambs were found to be built into the entrance of a much later house, while other decorated blocks were incorporated into nearby buildings (Churcher and Mills 1999: 260). Based on the style of the reliefs and the small amount of preserved text, this was thought to be a Ptolemaic temple dedicated to Thoth (Mills 1980a: 260–261); however, subsequent investigation has shown that although the blocks do in fact originate from a temple dedicated to Thoth, they have actually been brought to El-Qasr from the nearby site of Amheida (Site 13), where the destroyed remains of a temple to Thoth have been found (Davoli and Kaper 2006; Davoli and Kaper in Bagnall *et al.* 2015: 105). Based on comparisons with similar blocks from Amheida, those from El-Qasr have been redated to Dynasty XXVI or XXVII (O. Kaper pers. comm. 2011).

30/450-C4-1 and 30/420-H3-1

In their survey of the Old Kingdom hilltop sites around Dakhleh Oasis, Kaper and Willems (2002) noted the presence of remains from later periods at several of these sites. They identified a few pieces of 'later, perhaps Roman, wares' at 30/450-C4-1 (Kaper and Willems 2002: 82), while a fragment of a stela bearing an inscription in Demotic was found at 30/420-H3-1, which is dated as either late Ptolemaic or Roman (Kaper and Willems 2002: 82 and note 7). Neither piece of evidence is enough to confirm Ptolemaic activity at these sites, although it is of course possible that some of the hilltop sites were in use during the Ptolemaic Period.

31/435-I1-1, 'Ain Asil

This is a large town site and governor's palace of the Old Kingdom, which is being excavated by l'IFAO. It is listed with the Ptolemaic sites in the DOP index (Churcher and Mills 1999: 260); however, I am not aware of any evidence for Ptolemaic Period activity at the site.

31-405-K6-1

This site is a habitation site that comprises a surface sherd scatter and traces of mud-brick walls (Churcher and Mills 1999: 260). Upon examining the pottery records for this site, it has not been possible to identify any pottery of Ptolemaic date, apart from a single deep, cream-slipped bowl with a thickened rim and ring-base, which was found in the fill of Test 1. This vessel is broadly comparable to other Ptolemaic types (cf. Form 30), but as no direct parallels are known, a Ptolemaic date cannot be confirmed.

4.4 SITE TYPES

A diverse range of Ptolemaic sites is encountered in the oasis (FIGURE 4.3; TABLE 4.1; cf. TABLE 4.3). These sites incorporate elements that can be divided into four broad categories: settlements, smaller occupation sites, temples and cemeteries. Some sites are characterised by only one of these elements, whilst others incorporate several. The categories are broadly defined as follows:

Settlement Evidence for large-scale domestic activity, including multiple building complexes and extensive sherd scatters.

Occupation Evidence for small-scale domestic activity, including isolated structures and small sherd scatters with no visible architectural remains.

Temple Evidence for temple activity in the form of architecture, material culture or inscriptions.

Cemetery Evidence for funerary activity, including both isolated tombs or graves and large cemeteries.

The most common sites are cemetery sites, with a total of twenty-eight identified in Dakhleh (TABLE 4.1). Most of these are located in the western and central regions of the oasis, whilst only two have been found in the eastern region. Despite the fact that there are fewer Ptolemaic sites found in the eastern region than in the other two regions, we might still expect to find more than two cemetery sites. This discrepancy may be partly due to differences in the geographical setting across the oasis. For instance, in the western and central regions cemeteries are generally located on small hills and spring mounds, in some cases clustered together within a small area (cf. Sites 26–28 and 30). These mounds have often been identified as separate sites, even though they probably belonged to a single cemetery group. In contrast, Site 64, the main cemetery site of the eastern region, extends across a series of terraces within the foothills of the escarpment and incorporates between two- and three-thousand tombs. This cemetery is large enough to have serviced much of the population in this region and might be considered the equivalent of the six cemetery sites clustered around Mut al-Kharab (cf. Site Group F below).

The other site types are relatively well-distributed. There appears to be a higher number of settlement sites in the western region (TABLE 4.1); however, five of these are located within close proximity to one another and are probably part of a single large community (Site Group A; cf. CHAPTER 4.5). If we take this into account, the number of settlements located within each region is much more even. There also appears to be a discrepancy in the number of temples found in each region (TABLE 4.1). Whereas the central region contains five temples, the western and eastern regions are each confirmed as containing only one, yet there is some evidence to suggest that as many as five temples existed in each of these regions respectively (cf. below and TABLE 4.3).

TABLE 4.1 Distribution of Ptolemaic site types in Dakhleh.

	Settlement	Occupation	Temple	Cemetery
Western Region	9	7	1	9
Central Region	4	12	4	17
Eastern Region	4	7	1	2
Total	**17**	**26**	**6**	**28**

SETTLEMENT SITES

The majority of the domestic structures are built from mud-brick, and are often embellished with plaster and stone thresholds. Vaulted ceilings are common and a standard header-stretcher construction method is regularly used for walls. Settlement architecture is generally not well-preserved and very few settlements sites have been explored in detail, so it is difficult to determine whether or not the buildings comprised multiple storeys and exactly what form these took.

Three sites incorporate *pisé* (rammed-earth) structures (Sites 06, 22 and 48). This method of construction has been regularly found associated with Islamic Period sites in the oasis and its use was thought to have been restricted to this time (Mills 1980a: 276; 1983: 139). It is therefore significant that this construction method is found at three Ptolemaic sites, particularly as these sites have been dated to the Ptolemaic and Early Roman periods on the basis of the associated pottery, with no evidence for Islamic Period activity. This raises the possibility that the technique was in fact used earlier, although perhaps not on a large scale. At Site 22 the *pisé* structures are irregular and placed adjacent to the mud-brick structures, which could be a reflection of their function as outbuildings, perhaps as animal enclosures.

OCCUPATION SITES

Only a little can be said concerning this category of site. This is largely due to the fact that the preserved remains at these sites are mostly limited to surface sherd scatters and isolated mud-brick walls. In some instances, distinct structures can be identified and these predominantly comprise small buildings of several rooms. These buildings are generally situated atop small hills or outcrops, which might reflect their function as farmhouses, as we would not expect to find such buildings constructed in lower lying areas that could have been better used for crops.

TEMPLE SITES

For the most part, the evidence for Ptolemaic Period temples in Dakhleh is slight. Whilst there is clear evidence for temple construction and renovation in Dakhleh during both the Late Period (Davoli and Kaper 2006; Kaper 2012b) and Roman Period (Kaper 1997; 1998), there is no inscriptional evidence from Dakhleh that clearly points to the construction or renovation of a temple during the reign of a Ptolemaic king (Kaper 1998: 147–148). The evidence is mostly restricted to associated pottery finds (Gill 2012a; 2012b), as well as some inscriptional evidence in the form of ostraka and papyri (Bagnall and Ruffini 2012; Nur-el-Din 1982; Vittmann 2012). The mud-brick temples do not preserve inscriptions and until now they have generally been thought to be of Roman date based on the associated finds (Kaper 1998, 150; Mills 1983, 129–139). Despite the limited evidence, it is now possible to identify a number of sites where Ptolemaic temples are likely to have been located.

Many of the stone temples in the oasis have yielded evidence for Ptolemaic phases of use, although it is currently not possible to determine whether any of them were renovated or decorated by a Ptolemaic ruler. This is mostly due to the extremely poor quality of the preserved remains, for example at Mut al-Kharab, Amheida and ‘Ain al-Azizi. The fact that there is clear evidence for the presence of a Ptolemaic temple at Mut al-Kharab (CHAPTER 2), even though no inscribed blocks of Ptolemaic date have so far been discovered, is encouraging and provides a strong precedent for searching for Ptolemaic evidence at other sites in Dakhleh where stone temples are known to have been located.

Like Mut al-Kharab, the temple at Amheida (Site 13) is almost completely destroyed. Whilst the foundations are not preserved, hundreds of decorated stone blocks have been discovered, many of which are inscribed (Davoli and Kaper 2006: 13). These demonstrate that a temple dedicated to Thoth was constructed here during Dynasty XXVI, and subsequently rebuilt during the Roman Period

(Davoli and Kaper 2006: 13). No inscribed blocks of Ptolemaic date have been discovered so far; however, there is some evidence to indicate that the temple was in operation during this period. Pottery datable to the Ptolemaic Period has apparently been discovered amongst the disturbed fill in the area of the temple (Pyke 2006), which may indicate that the temple continued in use during this period. This is supported by the discovery of an animal cemetery in association with the temple complex, comprising both ibis and raptor burials, which can probably to be dated to the Late Period or Early Ptolemaic Period (Davoli 2012: 266–267). Furthermore, a number of Demotic ostraka dating to the Late Ptolemaic Period have been discovered in several areas across the site, including in the vicinity of the temple (Areas 4.1 and 4.2).[1] At least one text relates to the administration of a temple, as it mentions certain priests in association with an order for payment (Bagnall and Ruffini 2012: No. 315, from Area 4.2).

The temple at ʻAin al-Azizi (Site 43) is likewise poorly preserved. All that remains on the surface are scattered fragments of sandstone within a small mud-brick enclosure, which measures 35 x 20 m (Mills 1983: 181). A small test trench within the enclosure revealed a number of foundation walls of mud-brick and stone, which combined with the discovery of several isolated architectural elements, including undecorated stone blocks and a stone column drum, indicate that a small sandstone temple once stood at this site (Mills 1983: 181). Whilst the surface pottery indicates that the site was in use from the Late Period through to the Roman Period, the majority of the pottery recovered from the fill of the test trench within the temple enclosure appears to be of Ptolemaic date (APPENDIX 4). This suggests that the temple may have been in use during the Ptolemaic Period, but so far there is no evidence to confirm when it was constructed.

In contrast, the temple of Dayr al-Haggar (Site 07) is very well-preserved. The construction date is not known, although the surviving decoration was completed during the reigns of Nero, Vespasian, Titus, Domitian and Hadrian (Kaper 1997: 19; 1998: 151; Mills 1979: 178; 1999c). There is currently no evidence to suggest that additions were made to the temple during the Ptolemaic Period; however, it is now clear that an extensive Ptolemaic settlement once occupied the surrounding region (cf. Site Group A below), which raises the possibility that a Ptolemaic temple was once located at the site. It is currently not possible to confirm this theory as no excavation has taken place within the temple enclosure apart from the clearance necessary to restore the temple, the Processional Way and the Gateway (Kaper 1997: 23; Mills 2002: 27). Stronger evidence for the presence of a Ptolemaic temple at Dayr al-Haggar is found in a cache of Demotic ostraka discovered approximately 3 km away at Qaret al-Muzawwaqa (Site 12). These ostraka mention activities associated with the administration of a temple and date to the Late Ptolemaic Period, particularly the reigns of Ptolemy VIII Euergetes II and his successors (Nur el-Din 1982). The function of the mud-brick structure within which the ostraka were discovered is unknown, but there is no trace of a temple anywhere at that site. The close proximity of Qaret al-Muzawwaqa to Dayr al-Haggar raises the possibility that the temple mentioned in the texts should be sought at the latter site, an idea that has also been proposed by Kaper (1997: 23).

ʻAin Birbiyeh is the location of an almost complete sandstone temple, which is buried to roof level (Mills 1983: 132–134; 1999b). Construction appears to have begun during the Late Ptolemaic Period, as the gateway was decorated early in the reign of Octavian/Augustus (Kaper 1997: 15–16; 1998: 148). The temple was initially left undecorated, since no Ptolemaic inscriptions have been found, and the decoration was subsequently completed under Galba, Titus, Domitian and Hadrian (Kaper 1998: 149; 2010: 185). Despite the apparent absence of Ptolemaic inscriptions, there are several additional pieces of evidence that support a late Ptolemaic date for the construction of this temple. A private

[1] These include Nos 389–393 from Area 1.3, Nos 198 and 278 from Area 2.1, Nos 280, 305, 378, 384, 385 and 427 from Area 4.1, and Nos 315, 422 and 428 from Area 4.2; Nos 278, 280 and 315 are dated to the Late Ptolemaic Period, while the remainder are dated to the Ptolemaic – Early Roman Period (Bagnall and Ruffini 2012: Table on pages 61–73).

dedicatory inscription in Demotic, which was found painted on a roofing block that had collapsed into the sanctuary, has been dated to 15 September 58 BCE.[2] Furthermore, in the Edfu 'Oasis List' the god Amun-Nakht is mentioned in relation to the first oasis (Aufrère 2000: 81; Kaper 1992: 121–122; cf. CHAPTER 1). Although the name Amun-Nakht is encountered elsewhere in the oasis during the Roman Period, the only temple known to be dedicated to Amun-Nakht is that at 'Ain Birbiyeh (Kaper 1997: 65). This supports the theory that the temple had begun to be constructed already during the Late Ptolemaic Period, when the Edfu text was written (Kaper 1992: 122). The similarity in plan to other Ptolemaic temples also supports a late Ptolemaic date for its construction (Kaper 1997: 12). Additional support for Ptolemaic Period activity at the site is the identification of common Ptolemaic forms amongst the pottery recovered from the fill of the gateway (APPENDIX 4). This material was found mixed with pottery of later date, and probably derives from the surrounding settlement.

Finally, there is some evidence that points to the presence of a Ptolemaic temple beneath the Main Temple at Ismant al-Kharab. Traces of an earlier rectangular stone structure have been located beneath Rooms 3 and 4 of the Main Temple (FIGURE A4.41; Hope 2002b: 181; Dobrowolski 2002: 124; Whitehouse and Hope 1999: 95 and Pl.2), whilst numerous stone blocks, probably belonging to this earlier structure, were found built into the walls of the temple and in the associated rubble (Hope 2002b: 181, 187). Considering that the earliest datable inscription from the Main Temple dates from the reign of Nero (54–68 CE; Bagnall *et al.* 2002; Hope 2002b: 186–187), it is apparent that the earlier stone structure could have been constructed during the Late Ptolemaic or Early Roman Period. Support for a Ptolemaic construction date is found in the presence a stone pedestal (Reg.1D/8; I.87) bearing a Demotic inscription, which mentions the god Tutu, and which has been dated palaeographically by John Tait (in Bagnall *et al*. 2002: 50) to the Late Ptolemaic Period, as well as fragments of Demotic papyrus, which record measurements of a building and twice mention 'the slaying of Seth' (Tait 2002: 297), and which date palaeographically to the 1st century BCE or perhaps the early 1st century CE.

Many of the mud-brick temples found in Dakhleh have also yielded evidence for Ptolemaic phases of use. Site 45 (31/405-L4-2), Site 55 (Qasr el-Haleka), Site 61 (31/435-K3-1), Site 65 (El-Qusur), Site 71 (31/435-N6-2), and Site 72 (30/435-K1-5) have each yielded Ptolemaic types amongst the surface pottery, alongside pottery of Roman and occasionally also Late Period date, which suggests that the temples were in use during these periods. The fact that this material is largely from the surface prevents it being used to determine a date for construction.

Two general types of temple can be distinguished; the first (Type 1) comprises a linear plan, usually with a pylon entrance, followed by a long hall and a series of smaller rooms leading into the sanctuary; the second (Type 2) is more complex and comprises a sanctuary flanked by a number of smaller rooms, and often with more than one entrance (Mills 1983: 129). These temples are constructed from either stone or mud-brick, and were presumably decorated, although it is difficult to know to what extent as very little of these buildings generally survives. Based on the better preserved examples, it appears that the stone temples were decorated with typical relief carving, occasionally embellished with paint and glass inlay, while the mud-brick temples were plastered and possibly painted.

A few temples are found in relatively isolated locations, such as those at Sites 55, 71 and 72. It is perhaps significant that all three temple command good vantage points over caravan routes; Site 55 in the central part of the oasis and Sites 71 and 72 at its eastern end (cf. below and CHAPTER 6.5).

[2] This date has been proposed by Sven Vleeming (O. Kaper pers. comm. 2015).

TABLE 4.2 Summary of evidence for Ptolemaic temples in Dakhleh (note: evidence from Qaret el-Muzawwaqa and Ismant al-Kharab is not included).

Site	Type	Material		Size (metres)		Orientation	Ptolemaic evidence
		Temple	*Temenos*	*Temple*	*Temenos*		
13	(?)	Stone?	Mud-brick?	(?)	(?)	(?)	Pottery; ostraka
29	2?	Stone?	Mud-brick	(?)	180 x 240	N-S?	Pottery; ostraka; moulds
43	(?)	Stone?	Mud-brick	(?)	20 x 35	E-W	Pottery
45	2	Mud-brick	---	26 x 29	---	N-S	Pottery
55	2	Mud-brick	---	25 x 50	---	E-W	Pottery
61	1	Mud-brick	---	6 x 30	---	N-S	Pottery
65	1	Mud-brick	---	7 x 23	---	E-W	Pottery
69	2	Stone	(?)	21 x 35	(?)	E-W	Pottery; plan; inscription
71	1	Mud-brick	---	(?)	---	E-W	Pottery
72	(?)	Mud-brick	---	10 x 15	---	N-S	Pottery

CEMETERY SITES

Although there are a considerable number of cemeteries which appear to have been used during the Ptolemaic Period, the number of tombs which have been tested is comparatively small. In most cases only one or two tombs have been investigated, while only a few cemeteries have been subject to extensive investigation. This makes it difficult to examine overall trends in funerary practice within a given cemetery; however, based on the available data it is still possible to make some general observations about Ptolemaic funerary practice within Dakhleh.

A range of tomb types can be recognised, including simple pits, mud-brick vaulted tombs, and rock-cut tombs. Both single- and multi-chambered tombs are encountered. The single-chambered tombs are rectangular or circular, and are either rock-cut or built of mud-brick (FIGURE 4.1). The multi-chambered tombs are all constructed of mud-brick and are generally of a similar size (FIGURE 4.2). These tombs comprise either three or four rooms, some of which act as burial chambers, whilst others are entrance halls. Simple pit tombs are also encountered at cemeteries where Ptolemaic tombs are located; however, these tombs do contain tomb goods and are thus difficult to date.

It is not surprising to encounter such a range of burial types in Dakhleh as a similar diversity is encountered in the Nile Valley.[3] Such variation is to be expected, since the choice of tomb type appears to have been largely influenced by the landscape as much as by social status. In both Dakhleh and the Nile Valley, rock-cut tombs appear to have been favoured in areas where an appropriate rock outcrop is located, yet when no such outcrop is available then mud-brick tomb structures are favoured. It is also interesting to consider the way in which historical memory might have played a part in tomb location. At Qila el-Dabba (Site 58) in Dakhleh, several tombs of possible Late Period or Early Ptolemaic date were constructed immediately adjacent to one of the large mastabas of the Late Old

[3] Landvatter (2013) presents a useful analysis of Ptolemaic mortuary practices in the Nile Valley and demonstrates that clear regional differences occur.

Kingdom (Mastaba II), which suggests that the deceased sought to establish some connection with the earlier monument. Interestingly, a similar practice has been identified at North Abydos (Knoblauch and Bestock 2009: 235–236). Considering the presence of Ptolemaic funerary activity at Qila el-Dabba, it may at first appear strange that there is no evidence for a Ptolemaic settlement anywhere in the immediate vicinity; however, it is possible that the cemetery was viewed as an appropriate location for funerary activity, but not for permanent habitation, as a similar situation is encountered at Deir el-Medina during the Ptolemaic Period (Montserrat and Meskell 1997: 183–184).

Many of the Ptolemaic tombs in Dakhleh contain multiple burials, which may indicate reuse by a specific family, but it is difficult to prove as the skeletal remains are frequently disturbed. Often there is evidence for bodies being wrapped in linen, apparently in an attempt at mummification (e.g. Site 15/ Tomb 2; Site 42/ Tomb 1). There are also two examples (from the same tomb) of bodies being covered with decorated cartonnage masks (Site 52/ Tomb 13), while fragments of painted cartonnage were also discovered in the disturbed fill of another tomb (Site 56/ Tomb 1). Ceramic and stone coffins are both encountered, as well as a single example made from unbaked mud (Site 15/ Tomb 2); while the stone coffins are generally unadorned (e.g. Site 42/ Tomb 1), those in ceramic are often decorated with modelled anthropoid features (e.g. Site 24/ Tomb 1; Site 31/ Tomb 1). Anthropoid coffins with modelled features of varying styles are found throughout the Nile Valley from the Late Period and Ptolemaic Period (Cotelle-Michel 2004), whilst examples with painted floral and geometric decoration of Ptolemaic date are found in the Egyptian Nile Valley and also in Nubia (Cotelle-Michel 2004: 280–281). In Dakhleh there is a single example of a ceramic coffin with black and red painted floral decoration (Site 33/ Tomb 1), which brings to mind the painted decoration frequently encountered on Ptolemaic pottery in Dakhleh (CHAPTER 3). This raises the question of whether ceramic coffins were manufactured, or at least decorated, by oasis potters (cf. Gill *Forthcoming c*).

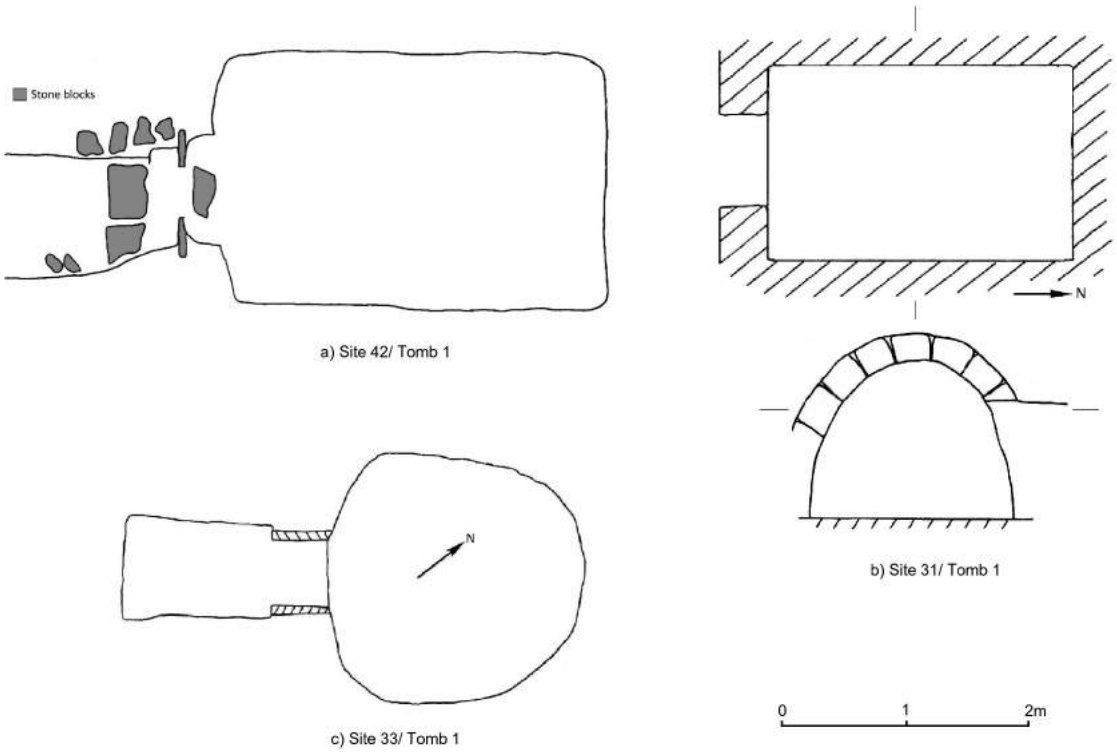


FIGURE 4.1 Examples of single-chambered tomb types of Ptolemaic date found in Dakhleh; (a) Site 42/ Tomb 1 (after Mills L.F. F.N. 1980: 74); (b) Site 31/ Tomb 1 (after Mills A.J. F.N. 1980b: 49); (c) Site 33/ Tomb 1 (after Mills L.F. F.N. 1980: 54).

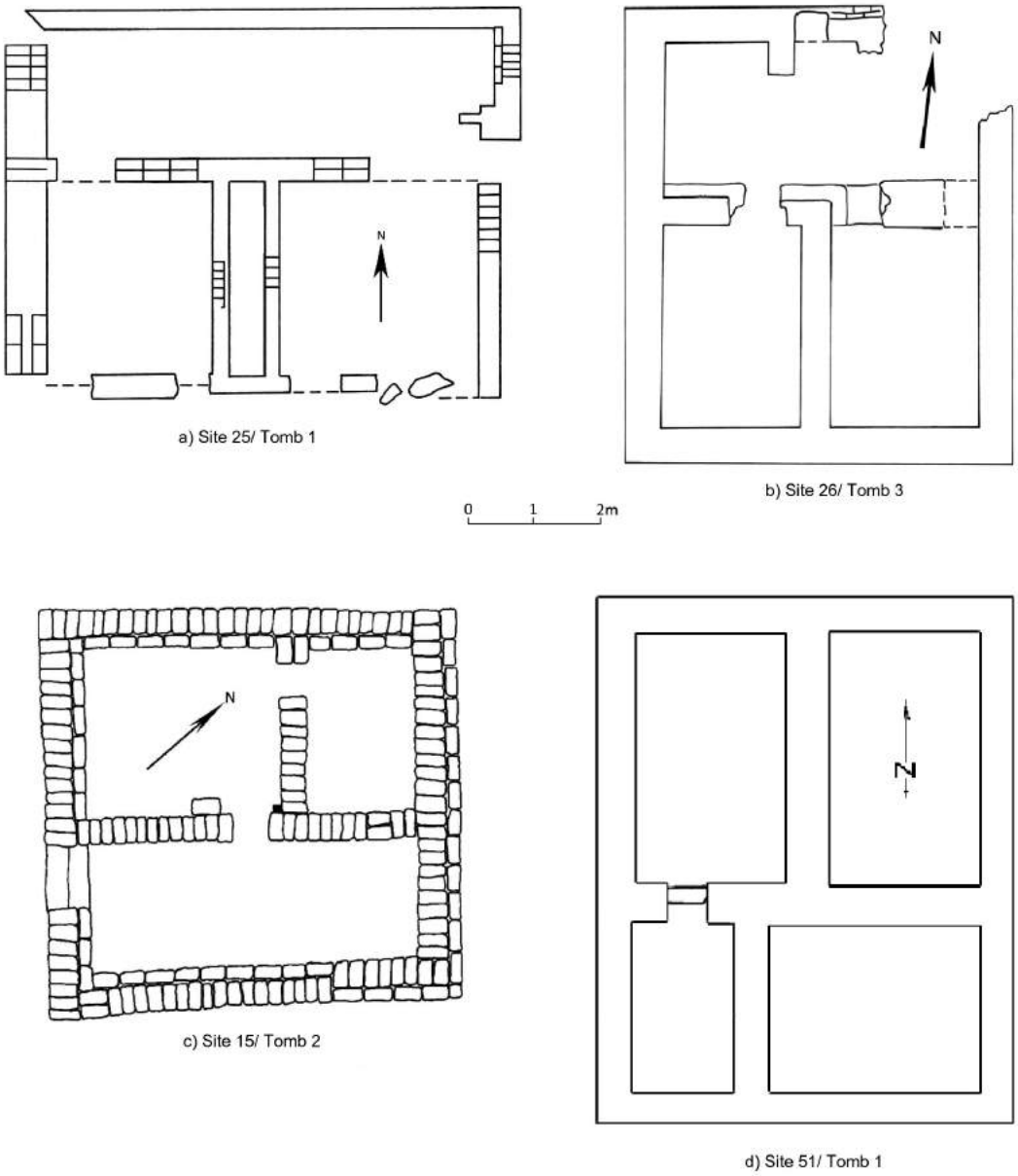


FIGURE 4.2 Examples of multi-chambered tomb types of Ptolemaic date found in Dakhleh; (a) Site 25/ Tomb 1 (after Brind F.N. 1980: 25); (b) Site 26/ Tomb 3 (after Mills L.F. F.N. 1980: 44); (c) Site 15/ Tomb 2 (after Frey F.N. 1979: 22); (d) Site 51/ Tomb 1 (after Mills F.N. 1981b: 13).

Ceramic vessels were frequently placed in Ptolemaic tombs and in a few cases these carry traces of resin, sometimes with pieces of linen adhering (e.g. Site 33/ Tomb 1; Site 42/ Tomb 1; Site 52/ Tomb 13). This seems to indicate that they were used in the embalming process as containers for storing and mixing materials, and were placed in the tomb perhaps as part of a funerary ritual once mummification was complete. The resin itself was used to coat the body of the deceased both externally and internally in an effort to preserve the soft tissue (Aufderheide *et al.* 2003: 149–150), and appears to have been used in favour of natron during the Ptolemaic and Roman periods (Aufderheide *et al.* 2003: 149).

Some tomb vessels were probably not manufactured with a specific funerary function in mind, and could have been reused after first being used in a domestic context. This theory is supported by the fact that many vessels found in tomb contexts regularly show traces of use such as worn surfaces and broken handles or rims. This could perhaps be interpreted as the result of mistreatment during burial, but the broken sections are not usually found within the tomb, which indicates that the vessels were

already broken before they were placed in the tomb (e.g. Numbers **917**, **1092**, **1161**). One such vessel (Number **917**), which was used during mummification, was found to be broken at the neck and interestingly, similar vessels broken in the same way were found at 'Ain el-Dabashiya (Dunand *et al.* 2013: Fig. 167) and at El-Deir in Kharga (Dunand and Lichtenberg 2003: 4, Pl. 7), the latter within what might be interpreted as an embalmer's workshop. The significance of such parallels is not clear, although it seems to indicate that certain types of vessels were preferred for embalming. Indeed, we can see that certain pottery forms are regularly encountered within tomb contexts, in particular a variety of small bowls (Forms 7–11 and 17–26), deep bowls (Forms 29–32), spouted vessels (Forms 81–88), squat jars (Forms 51–52), and double gourds (Form 56). In fact, squat jars (Forms 51–52) have only been found within funerary contexts, which suggests that they may have been manufactured specifically for this purpose. It is not clear whether the choice of vessel types was dictated by the needs of the embalmers, or whether there was a symbolic purpose connected to the needs of the deceased, such as in the provision of a funeral meal. A combination of the two is probably most likely.

Despite the lack of well-dated and published Ptolemaic tombs, it is possible to see that there are close parallels between Dakhleh and the Nile Valley in terms of tomb construction and style, and also burial practices. In Dakhleh, the multi-chambered mud-brick tombs thought to be of Ptolemaic date (e.g. at Sites 15, 25, 26 and 51; FIGURE 4.2) are comparable to one recently excavated tomb at Abydos, which was clearly in use during the Ptolemaic Period and may have been constructed then or slightly earlier (Knoblauch and Bestock 2009: 235 and Fig. 8). The rock-cut tomb at Site 42 (Tomb 1) in Dakhleh is comparable to a Ptolemaic tomb found in Nubia on the island of el-Hesa (Cemetery 3, Tomb 75; Reisner 1910: Fig. 46).

Similarities between the burial practices of the oasis and the Nile Valley extend to the types of burial goods encountered and the treatment of the body, and perhaps also to the nature of the funerary rituals which took place. In the Nile Valley, funerary rituals of the Ptolemaic Period appear to broadly represent a continuation of earlier practices, with some evidence for innovation and regional variation (Riggs 2010: 2; Landvatter 2013). As much as can be determined from the limited evidence, funerary rituals in Dakhleh appear to have largely mirrored those of the Nile Valley. There is evidence for the practice of the ritual of mummification in several Ptolemaic tombs in Dakhleh, including the placement of amulets upon the body in at least one case (e.g. Site 24/ Tomb 1). Several tombs also include pottery vessels that were clearly used in the embalming process, which may have placed within the tomb as part of a ritual. In one case, there is also evidence for the placement of a ritual meal within the tomb (Site 15/ Tomb 2). Bodies were sometimes placed in ceramic coffins, often with modelled facial features and in one case, painted geometric and floral designs. Gilded and painted cartonnage was also used for Ptolemaic burials in the Nile Valley, and the practice appears to have been likewise followed in Dakhleh, although only two Ptolemaic site have yielded evidence for this (Sites 52 and 56; cf. Schweitzer 2002). More evidence for this practice has been found in the other oases, namely at El-Deir (Dunand *et al.* 2012: 289–291) and 'Ain el-Labakha (Ibrahim *et al.* 2008) in Kharga, and at the Valley of the Golden Mummies in Bahariya (Hawass 2000: 49).

4.5 SITE DISTRIBUTION

Ptolemaic sites are found in all three regions of the oasis, with twenty-three located in the western region, thirty-three in the central region, and sixteen in the eastern region (FIGURE 4.3). It is evident that the majority of sites are located either on or beyond the edge of the modern cultivation; this may be a direct result of increased preservation outside the areas of modern cultivation due to a lesser degree of human interference, but it may also reflect environmental conditions in the Ptolemaic Period, such as the location of sand dunes and the availability of water sources. An examination of FIGURE 4.3 reveals that many of the sites appear to cluster into distinct groups. Based on these clusters I have identified a total of thirteen potential Site Groups. These groups are relatively evenly distributed

across the oasis, with five groups located in the north-western region, five groups located in the central region, and three groups located in the eastern region. Each Site Group comprises a minimum of two sites, with as many as ten found in a single group (FIGURE 4.4).

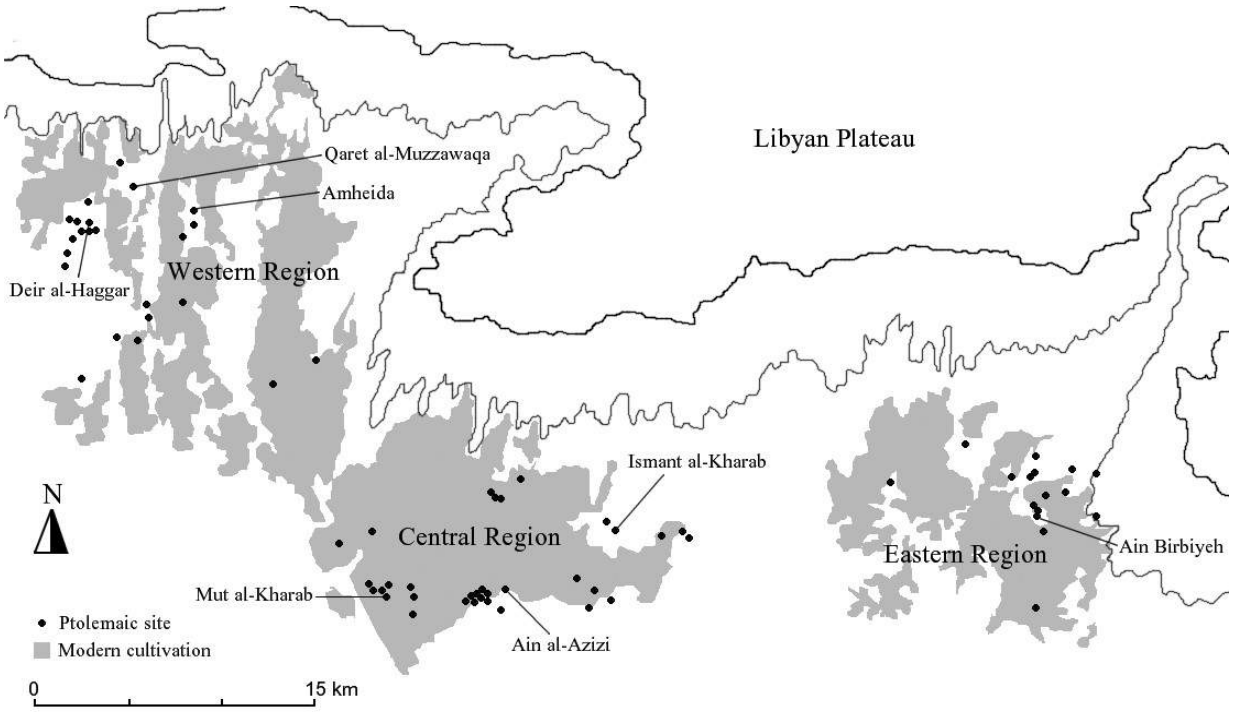


FIGURE 4.3 Map of Dakhleh Oasis showing general distribution of Ptolemaic sites.

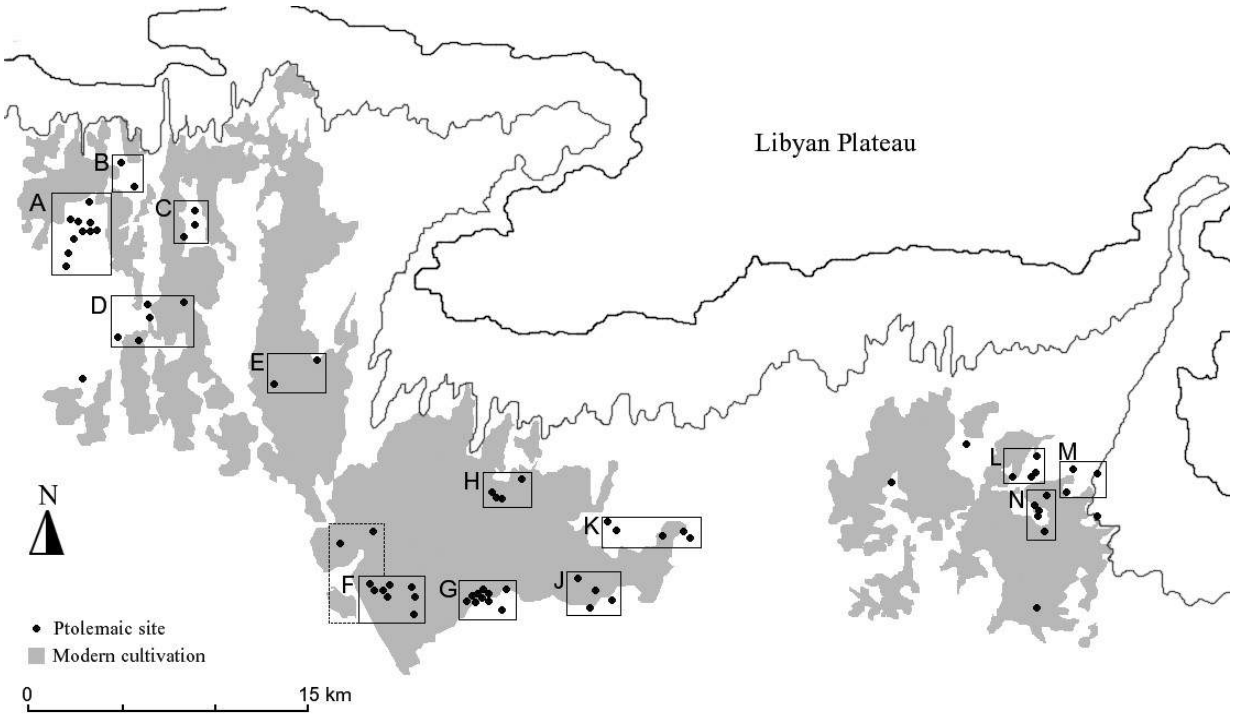


FIGURE 4.4 Map of Dakhleh Oasis showing Site Groups A–N.

The Site Groups are defined partly on the basis of geographic proximity, with the majority of sites in any given group falling within a radius of two kilometres, but also on the basis of the types of associated sites. For instance, each group comprises a major settlement, one or more cemeteries and very often a temple. The groups have each been assigned a letter from A–M (excluding I), beginning with Group A in the north-western corner of the oasis and moving in a general south-easterly direction (FIGURE 4.4).

WESTERN REGION

Five Site Groups are identified in the western region of Dakhleh (FIGURE 4.4). The population appears to have been densest in the north-west corner of the region, as the largest number of sites is found in Group A, whilst Groups B, C and D are all located relatively close by. It is strange that no Ptolemaic sites have so far been identified in the region around and to the east of modern El-Qasr, in the north-eastern part of this region, as traces of a Late Roman fort have been identified at that site (Kucera 2010; 2012). It is also in this area that two major routes descend from the plateau through passes in the escarpment and enter the oasis; the Darb el-Kashaba from the direction of the Nile Valley, and the Darb el-Farafra from the direction of Farafra Oasis.

Group A

Group A is located in the north-western part of the oasis and incorporates the site of Dayr al-Haggar (Site 07; FIGURES 4.4 and 4.5). It comprises ten sites, including five settlements (Sites 01, 04, 07, 08 and 10), three smaller occupation sites (Sites 03, 06 and 09), and three cemeteries (Sites 02, 05 and 10).

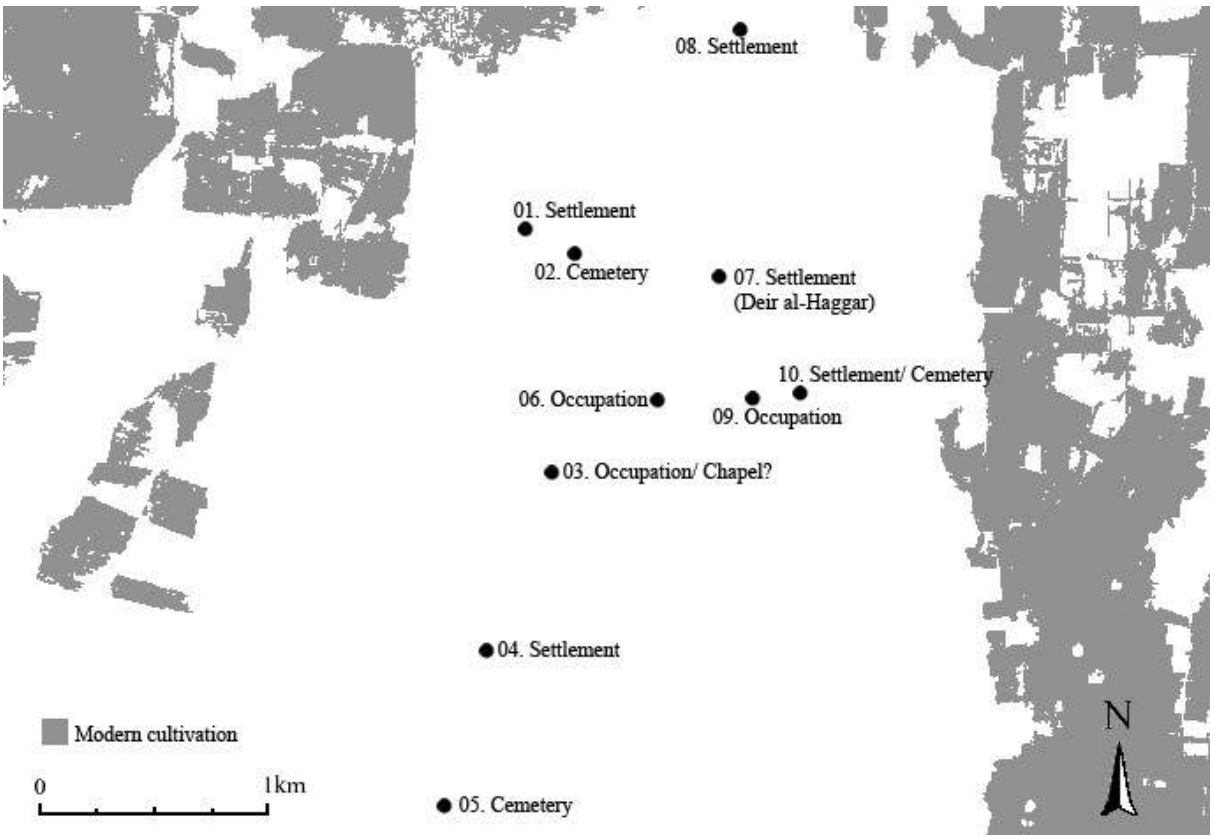


FIGURE 4.5 Map showing Group A sites.

There is no clear evidence for a temple within this group; however, a small building located at Site 03 may have served some kind of religious function. The group also incorporates the large stone temple of Dayr al-Haggar (Site 07), and although this temple dates to the Roman Period, it could potentially be the location of an earlier Ptolemaic temple. There is no way to confirm this proposition, as work at the temple has been limited to clearance, recording and reconstruction, with no excavation below floor level having taken place. There is in fact one piece of evidence that points to the presence of a Ptolemaic temple in the general vicinity; a cache of Demotic ostraka dating to the Late Ptolemaic Period, which was found in a building at Qaret el-Muzawwaqa (Site 12), and which refer to activities associated with the administration of a temple (Nur-el-Din 1982). Due to the fact that there is no other evidence for a temple at Site 12, as well as the fact that this site is located only 3 km north-east of the Dayr al-Haggar temple (Site 07), it is possible that the temple referred to in the ostraka was located at Site 07. Another possibility is that the ostraka refer to a temple at Amheida (Site 13), which is located approximately 3.5 km east-south-east of Site 12.

At the core of Group A is a cluster of seven sites that fall within an area of approximately 1 km^2. This includes three settlements (Sites 01, 07 and 10) and three occupation sites (Sites 03, 06 and 09), which due to their close proximity are probably representative of a single large settlement. Two cemeteries are closely associated with this central cluster (Sites 02 and 10), located on the west and east respectively. In addition to the central cluster there is an isolated settlement (Site 08) located approximately 1 km to the north, which perhaps should be seen as a satellite that was dependent on the larger settlement. Likewise, another settlement (Site 04) located approximately 1 km to the south of the central cluster should probably also be seen as a dependent settlement. There is also a cemetery (Site 05) located further to the south, which may be connected to this southern settlement.

The settlements in this group are extensive; large numbers of mud-brick buildings are visible on the surface along with extensive sherd scatters. There are more settlement sites associated with Group A than with any other Site Group, which is probably more a result of differences in preservation than a reflection of the actual situation in Ptolemaic times. The area occupied by Group A is generally unaffected by the encroachment of modern settlement and cultivation, largely due to the presence of an extensive chain of sand dunes that are gradually moving eastward across this area. Not only have these sand dunes helped to prevent the area from being developed in modern times, but in burying many of the sites they have also assisted in protecting them from destructive forces, both natural and man-made. This stands in contrast to many of the other Site Groups, which have been more greatly affected by modern settlement. For example, the settlement connected to the site of Mut al-Kharab (Site 29; Site Group F) is almost completely obscured by the modern town of Mut.

Group B

Group B is located in the western region of Dakhleh (FIGURES 4.4 and 4.6). It comprises two sites located approximately 1.5 km apart, one of these being a settlement (Site 11) and the other the cemetery of Qaret el-Muzawwaqa (Site 12). Given the fact that no other Ptolemaic sites have been discovered in the close proximity, it is likely that these two sites are directly related.

In addition to the cemetery at Qaret el-Muzawwaqa, there is also a ruined mud-brick building located at the eastern end of this site. A cache of Late Ptolemaic ostraka found within this building mention activities relating to the administration of a temple (Nur-el-Din 1982). No obvious temple remains have been discovered at either of the sites in Group B, and it may be that the temple mentioned in the ostraka was located nearby at either Dayr al-Haggar (Site 07) or Amheida (Site 13).

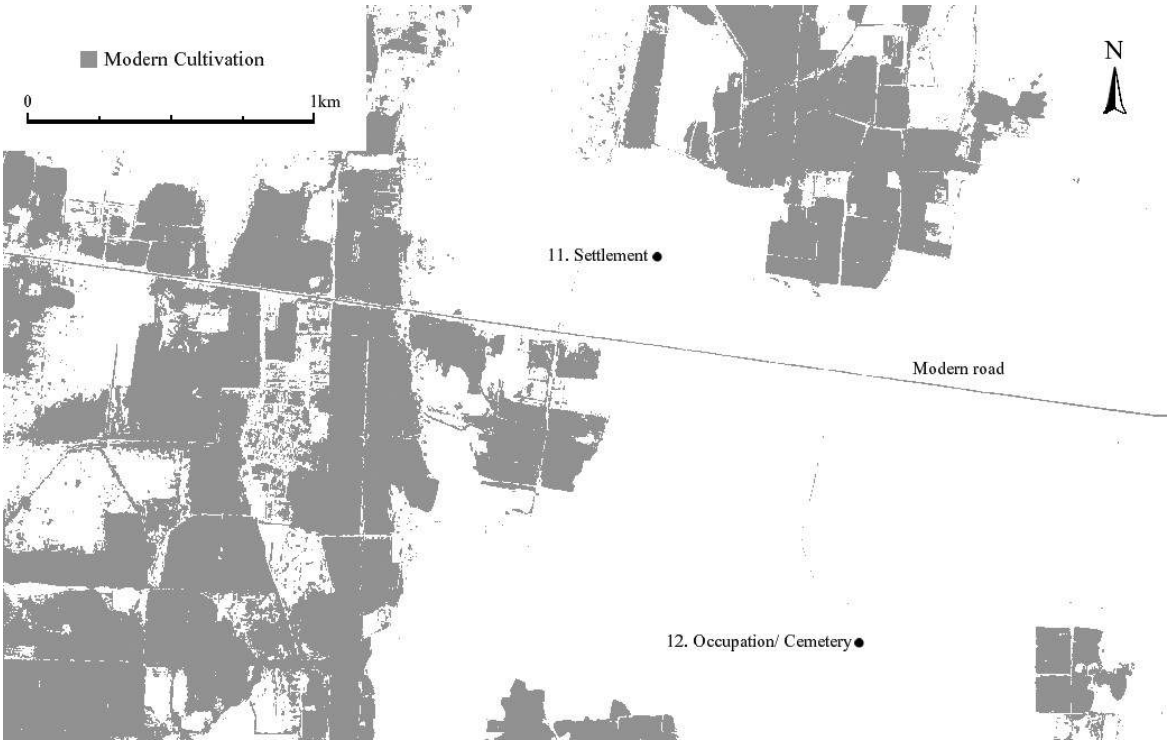


FIGURE 4.6 Map showing Group B sites.

Group C

Group C is located in the north-western region of the oasis and comprises three sites, including the site of Amheida (Site 13), along with two associated cemeteries (FIGURES 4.4 and 4.7). These sites occupy an area measuring approximately 2 x 1 km, and appear to belong to a single settlement. The majority of the visible remains at Amheida date to the Late Roman Period, which makes it difficult to determine the full extent of the Ptolemaic occupation; however, the presence of Ptolemaic pottery at the site, including within the area of the ruined temple, suggests that a Ptolemaic settlement did exist here. Despite the fact that the temple is almost completely destroyed, there is evidence in the form of Demotic ostraka that the temple was functioning during the Ptolemaic Period (Bagnall and Ruffini 2012: No. 315). We can assume that a Ptolemaic settlement was also located here, although so far no direct evidence for this has been uncovered.

The two cemeteries located to the south of Amheida (Site 13) also preserve evidence for use during the Ptolemaic Period, which further supports the theory that a Ptolemaic settlement was located in the vicinity. It is likely that the remains of this settlement have been obscured by the subsequent Roman occupation of the area, although traces of mud-brick buildings that are apparently not funerary-related have been discovered at Site 14. These buildings potentially belong to a settlement that pre-dates the visible remains at Amheida; however, it is impossible to confirm this without further investigation of the area. We have strong evidence for Ptolemaic activity at Site 15, in the form of a large multi-chambered mud-brick tomb that contained the skeletal remains of at least fifteen individuals. It is unlikely that this tomb stood here in isolation, and we can assume that it was connected to a nearby settlement.

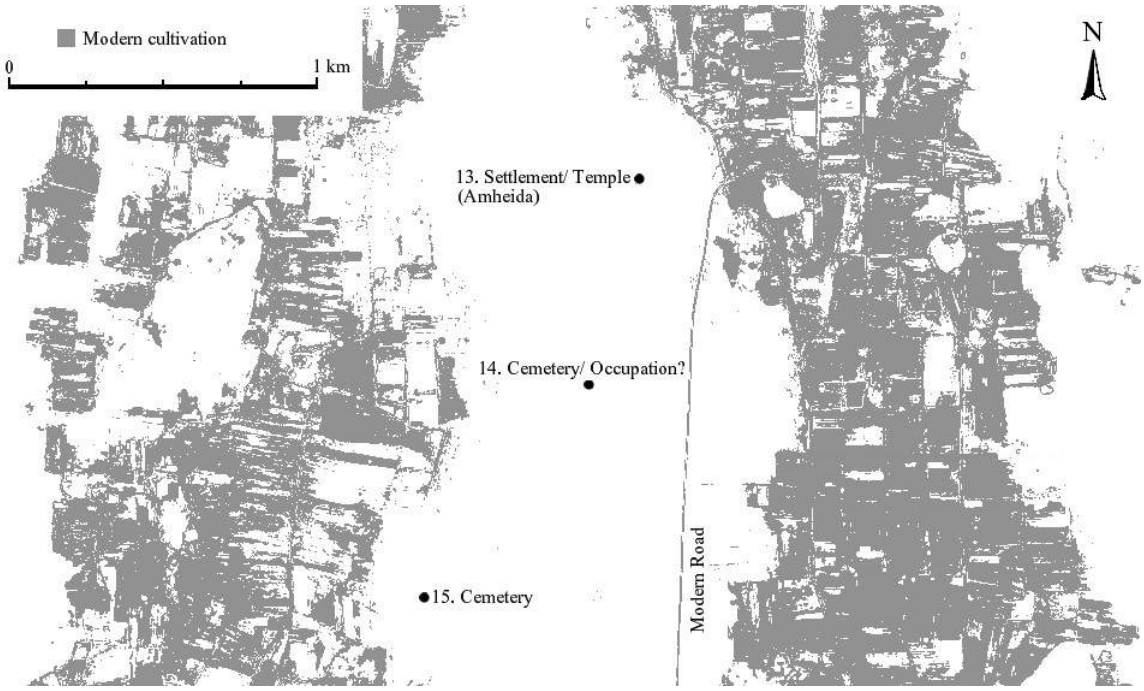


FIGURE 4.7 Map showing Group C sites.

Group D

Group D is located in the western part of the oasis and comprises five sites (FIGURES 4.4 and 4.8), as well as a sixth site (Site 21) that is located south-west of the group, and which should perhaps also be included as it is otherwise isolated (FIGURE 4.18). At the centre of the group is a settlement (Site 18), which is surrounded by three occupation sites within a radius of 2 km (Sites 16, 19 and 20). These occupation sites might represent farmhouses or isolated domestic structures that were dependent on the central settlement. The cemetery (Site 17) located to the north-east of the group was probably used by the inhabitants of Sites 16 and 18, as it is only 2 km from these sites. Another cemetery (Site 21) is located approximately 3 km to the south-west of Sites 19 and 20, and might be associated.

In addition to being surrounded by modern cultivation, the sites within this group are also affected by the encroachment of sand dunes. The same chain of dunes that can be seen on the southern edge of Group A also covers the western edge of Group D, while another north-south chain of dunes cuts directly through the middle of Group D and covers Sites 16 and 18. The result is that much of the area is obscured by sand, which may conceal additional sites that belong to this group, particularly on the west.

Group E

Group E is located in the western region of the oasis and comprises two sites (FIGURES 4.4 and 4.9). One of these is a settlement (Site 22) whilst the other is a cemetery (Site 23) located 2.5 km to the north-east. Site 22 is completely surrounded by modern cultivation and probably covered a much larger area than is currently preserved. There is no clear evidence for the presence of a temple at the site; however, part of a structure has been revealed that comprises baked-brick walls resting on stone foundations, which presumably had an important, perhaps religious, function.

Given that Dayr Abu Matta is located only 800 m north of Site 22 (FIGURE 4.9) it is possible that the former site represents a continuation of the occupation begun at the latter. In other words, Site 22 was occupied during the Ptolemaic and Early Roman periods, and then in the Late Roman Period a church

was built at Dayr Abu Matta and the focus of the settlement shifted to the north. Site 23 is located 2.5 km to the north-east of the settlement where the foothills of the escarpment begin. We might expect to find a cemetery in closer proximity to the settlement than this, although given that there are no major rock outcrops in the vicinity, the foothills might have been the most convenient location for a cemetery.

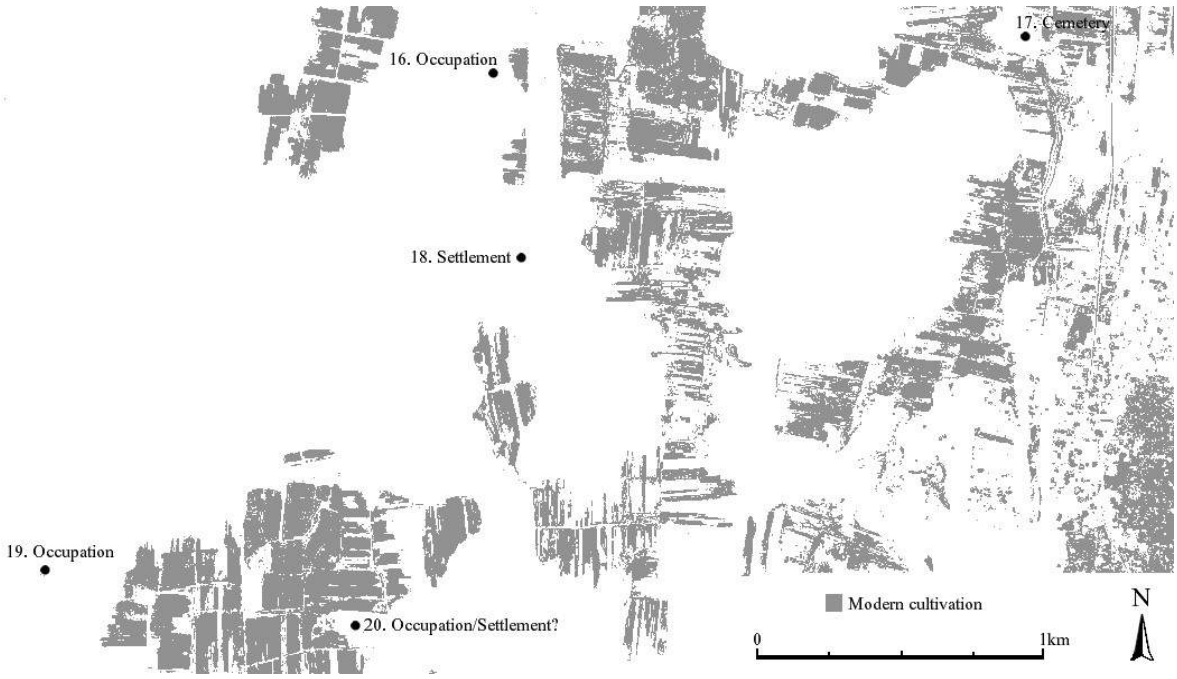


FIGURE 4.8 Map showing Group D sites.

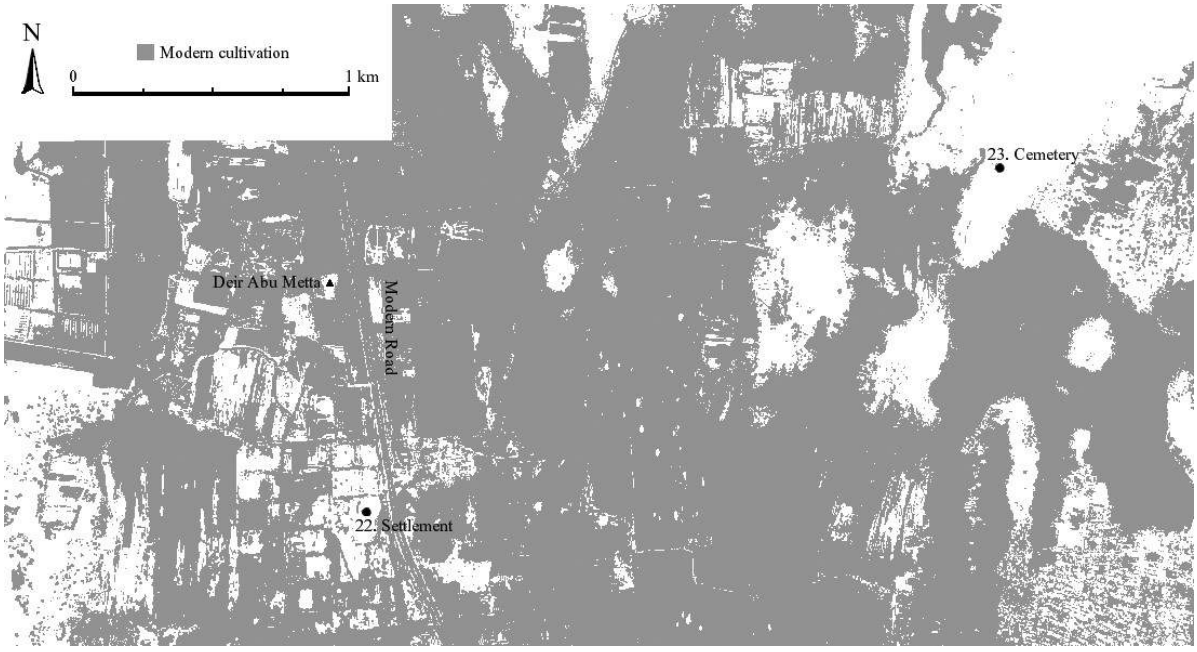


FIGURE 4.9 Map showing Group E sites.

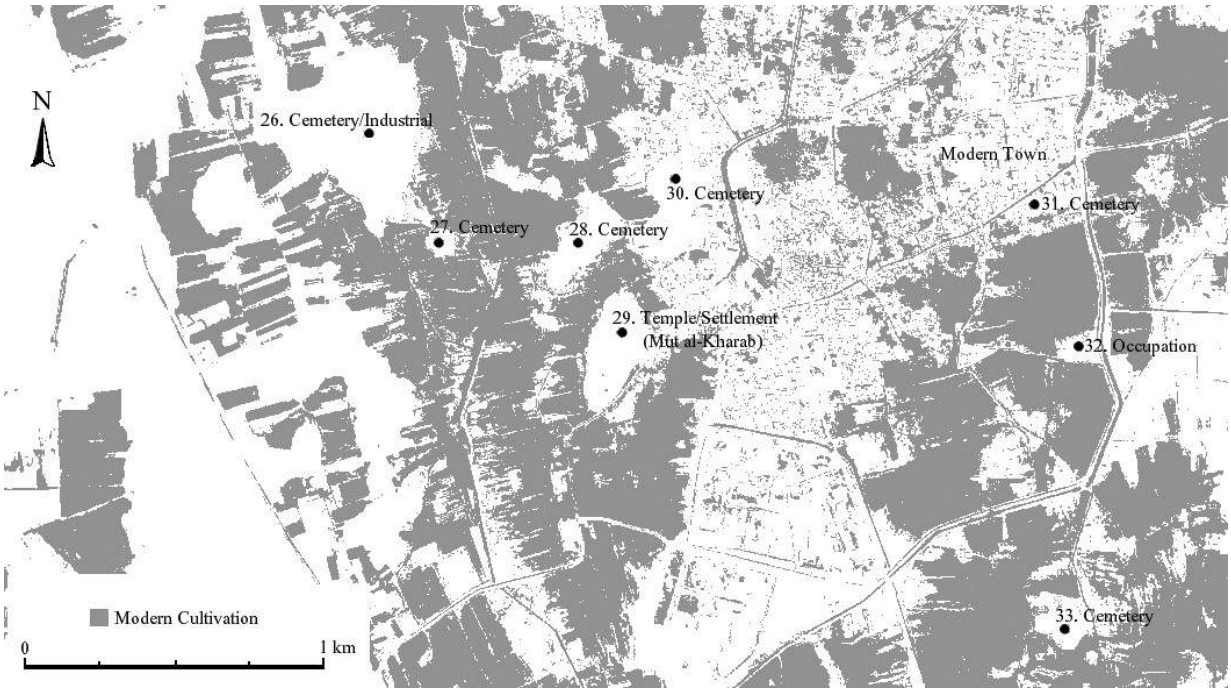


FIGURE 4.10 Map showing Group F sites.

CENTRAL REGION

Five Site Groups are identified in the central region of Dakhleh (FIGURE 4.4). The largest clusters are Groups F and G in the southern part of this region, which suggests that this was where the population was densest. It is interesting that no Ptolemaic sites have been identified in the middle of this region; it is unclear whether the area was unoccupied during the Ptolemaic Period, or whether the modern cultivation has obscured all traces of occupation.

Group F

Group F is located in the central region of the oasis in the vicinity of the modern town of Mut (FIGURES 4.4 and 4.10). It comprises eight sites, including the site of Mut al-Kharab (Site 29), six cemeteries and an occupation site. Two additional cemeteries (Sites 24 and 25) located approximately 3.5 km to the north-west of Mut al-Kharab might also be part of this group (FIGURE 4.18).

The focus of this Site Group is clearly Mut al-Kharab (Site 29) where we have clear evidence for a temple. The temple must have been surrounded by an extensive settlement, as evidenced by both the size of the temple temenos and the number of associated cemeteries. This settlement is obscured by the modern cultivation, as well as by the modern town of Mut, which occupies the area east and north-east of the temple. Four cemeteries (Sites 26–28 and 30) are located to the north-west and within a kilometre of Mut al-Kharab. These were probably used by the inhabitants of the settlement that surrounded the temple. To the east and south-east of Mut al-Kharab are two other cemetery sites (Sites 31 and 33) and an occupation site (Site 32). The latter may represent a farmhouse or outlying habitation that was dependent on the main settlement, whilst the two cemeteries were probably used by either the inhabitants of the main settlement or those of its satellite communities.

Given how fertile the region around modern Mut is in modern times (Mills 1999a: 176), it is not unexpected to find evidence for a large community in the form of multiple cemeteries and a substantial temple complex. The lack of obvious settlement remains in the area may seem to contradict this, yet it is not surprising considering the density of the modern cultivation and the size of modern Mut, which

is the largest town in the oasis today. Furthermore, the cemeteries are invariably located on hills and fossil spring mounds, which rise above the surrounding land and are therefore not under threat from farming. This situation stands in contrast to that of Group A, where modern fields do not cover the area and settlement remains are visible in many places.

The two cemeteries located to the north-west of Group F (Sites 24 and 25) have tentatively been included in this group, mainly due to the fact that they stand in isolation with no traces of settlement in the vicinity. It is quite possible that a settlement once existed nearby, but if so it has been obscured by the modern cultivation. Such a settlement could have been small and thus dependent on the larger settlement at Mut al-Kharab.

Group G

Group G is located in the central region of the oasis on the southern edge of the modern cultivation (FIGURES 4.4 and 4.11). It comprises ten sites, including the large settlement of 'Ain al-Azizi (Site 43), as well as five occupation sites and four cemeteries. 'Ain al-Azizi is undoubtedly the focus of this group, as it is clear that an extensive Ptolemaic settlement once existed here. The remains of a stone temple have been uncovered within the mud-brick temenos, while domestic buildings are visible in other parts of the site, along with evidence for industrial activity.

Apart from a single cemetery (Site 42) located to the south of 'Ain al-Azizi, the remaining sites in the group are located within a dense cluster to the west. This cluster comprises five occupation sites (Sites 34, 36, 37, 39 and 40) and three cemeteries (Sites 35, 38 and 41), all within an area measuring approximately 1 km^2. The occupation sites are each characterised by a single building (apart from Site 37 which preserves no structural remains) and probably represent farmhouses or isolated habitations, which were dependent on the large settlement of 'Ain al-Azizi. The cemeteries in this cluster were probably used by the inhabitants of both the outlying houses and the main settlement.

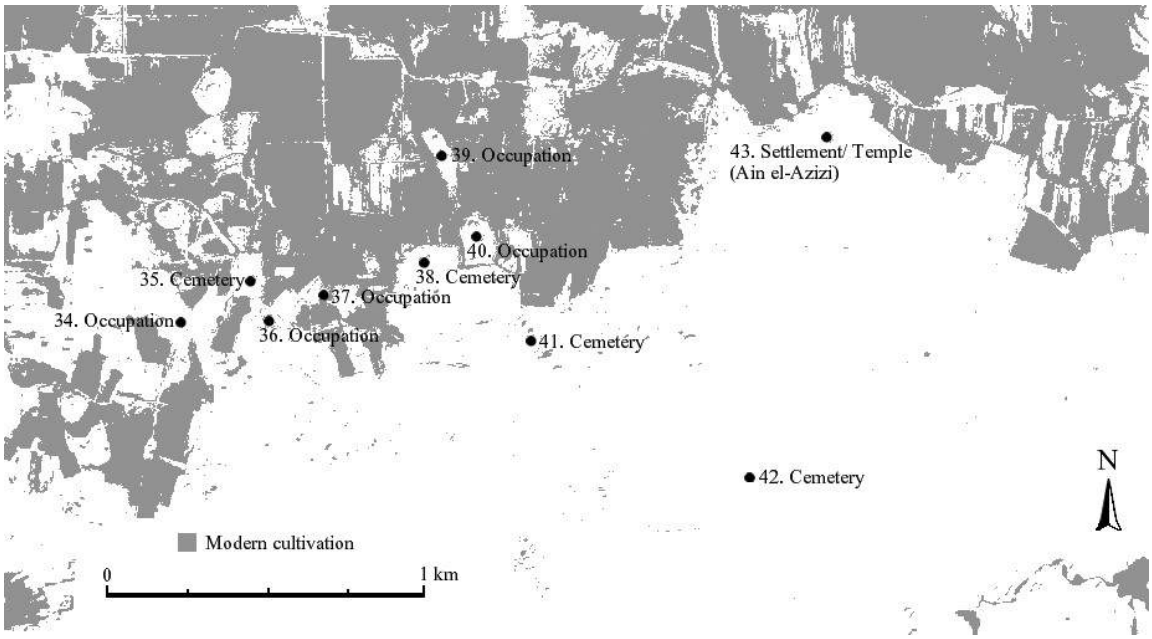


FIGURE 4.11 Map showing Group G sites.

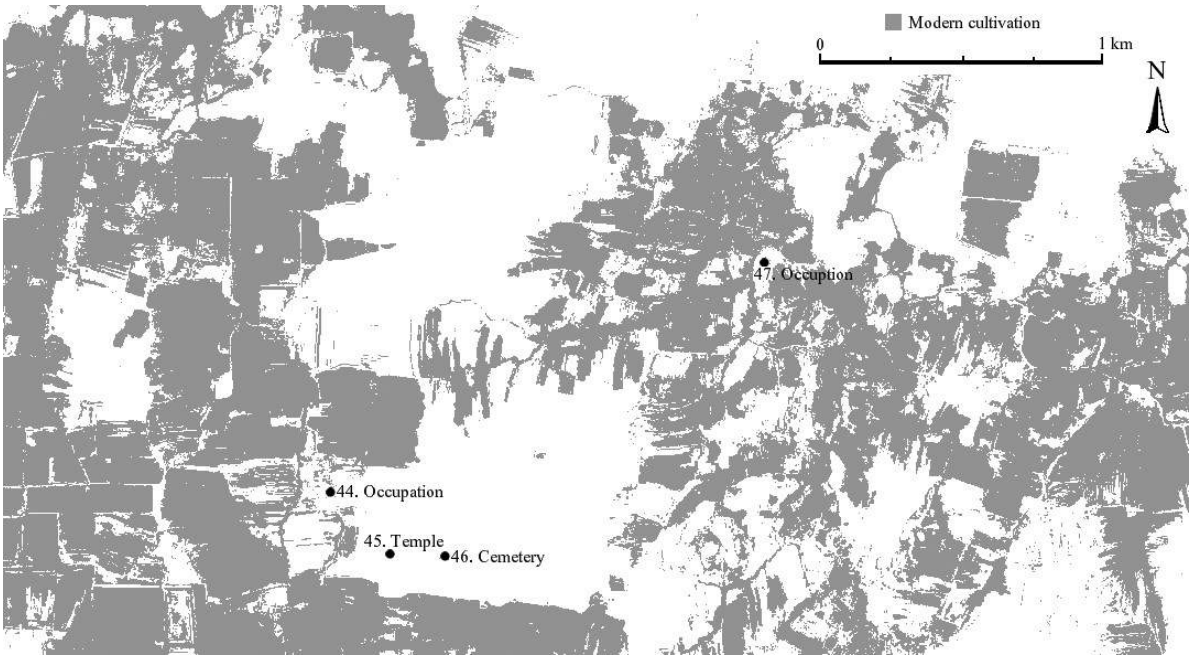


FIGURE 4.12 Map showing Group H sites.

Group H

Group H is located in the central region of the oasis close to the northern edge of the modern cultivation (FIGURES 4.4 and 4.12). It comprises four sites, including an occupation site (Site 44), a temple (Site 45) and a cemetery (Site 46), which are closely associated, while another occupation site (Site 47) is located approximately 1.5 km to the north-east.

The remains of a large settlement have been found at Site 47, although it is unclear which parts relate to a Ptolemaic phase of occupation. We would expect to find a Ptolemaic settlement within this group, as the presence of both a large cemetery (Site 46) and a mud-brick temple (Site 45) point to the fact that a substantial community existed in the area during Ptolemaic times. It is significant that there are no traces of any other buildings in the area surrounding the temple (Site 45) as several other mud-brick temples in the oasis are located in similarly isolated positions (for example Sites 55, 71 and 72; cf. CHAPTER 6.5).

Group J

Group J is located in the central region of Dakhleh on the southern edge of the modern cultivation (FIGURES 4.4 and 4.13). It comprises four sites, including a settlement (Site 48), an occupation site (Site 49) and two cemeteries (Sites 50 and 51) in an area measuring approximately 4 km^2.

The original extent of the settlement at Site 48 is unclear due to the fact that it is surrounded on all sides by modern cultivation. Site 49 does not preserve structural remains and should perhaps be seen as an outlying habitation site that was dependent on the settlement at Site 48. The two cemeteries (Sites 50 and 51) were probably used by the inhabitants of Sites 48 and 49.

The presence of large mud-brick mausolea at Beit el-Qaresh (Site 50), similar to those at Ismant al-Kharab (Site 53), is significant as it points to a relatively affluent population living in the area during the Early Roman Period. It also stands in contrast to Ismant al-Kharab, as the mausolea there are found in close proximity to the settlement, whereas in the case of Beit el-Qaresh there is no obvious nearby settlement.

Group K

Group K is located in the central region of Dakhleh on the eastern edge of the modern cultivation and incorporates the sites of Ismant al-Kharab (Site 53) and Qasr el-Haleka (Site 55) (FIGURES 4.4 and 4.14). It comprises five sites, including an occupation site (Site 54), a temple (Site 55) and a cemetery (Site 56) to the east, as well as a settlement (Site 53) and a cemetery (Site 52) to the west.

It is perhaps significant that the temple at Qasr el-Haleka (Site 55) stands in isolation from any obvious settlement remains, as a similar situation occurs elsewhere in the oasis (at Sites 45, 71 and 72; CHAPTER 6.5). Site 54, located just over a kilometre to the west of Qasr el-Haleka, preserves traces of mud-brick buildings and might represent a settlement that was connected to the temple. The nearby cemetery (Site 56) was probably used by the inhabitants of this settlement, and possibly also by those living at Ismant al-Kharab (Site 53).

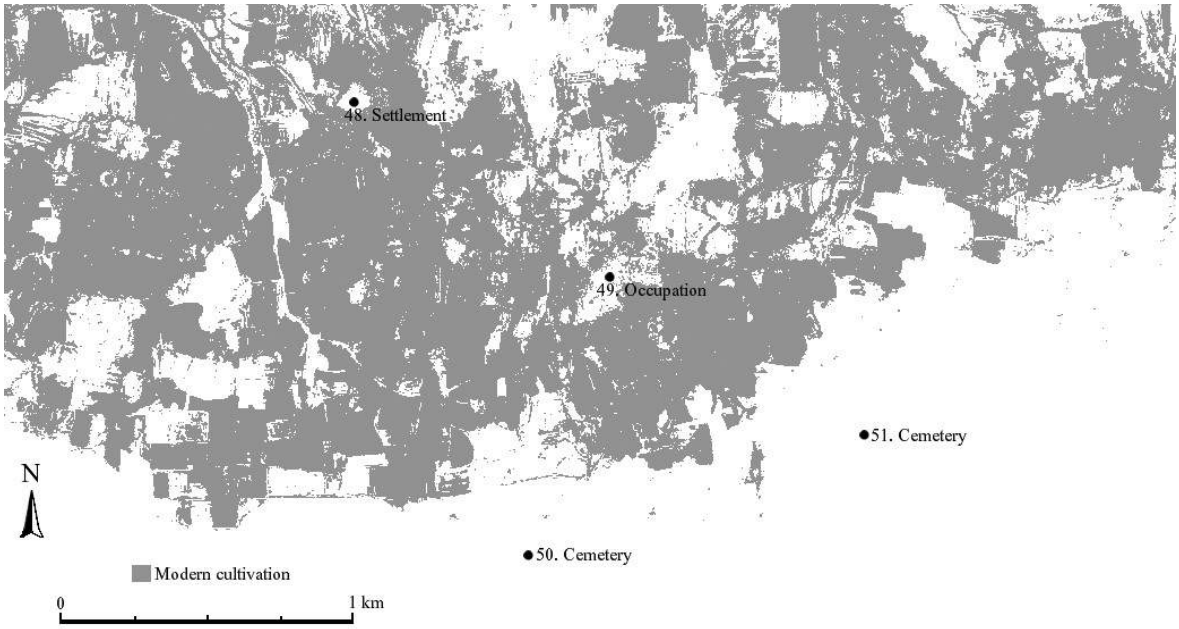


FIGURE 4.13 Map showing Group J sites.

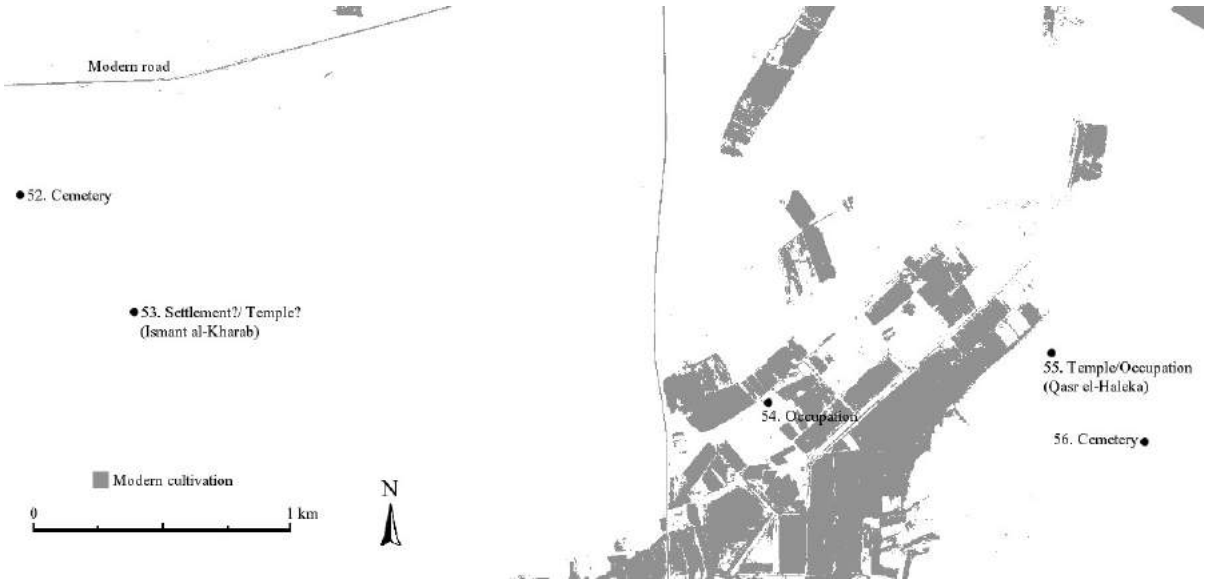


FIGURE 4.14 Map showing Group K sites.

Ismant al-Kharab (Site 53) and its associated cemetery (Site 52) have yielded some evidence for activity at the end of the Ptolemaic Period, as well as abundant evidence for continued occupation from the Early Roman Period to the 4th century CE. The earliest material at Ismant al-Kharab derives from Area C at the eastern end of the site, which suggests that the original settlement might have been situated here and subsequently expanded to the west and south-west. It is possible that during the Late Ptolemaic Period, Ismant al-Kharab was an outlying habitation site that was dependent on a larger settlement located in the vicinity of Qasr el-Haleka, perhaps at Site 54; however, by the Early Roman Period, the focus of settlement had shifted to Ismant al-Kharab, which subsequently developed into an important town.

EASTERN REGION

The sites found in the eastern region of the oasis do not fall into distinct clusters like those in the other regions (FIGURE 4.4). Nevertheless, they are divided into three groups based on proximity to one another, as well as the distribution of site types. In other words, the groups are divided so that each incorporates a temple and a major settlement. Groups L and M may in fact represent satellite communities which were dependent on the main settlement at ʻAin Birbiyeh (Site 69; Group N).

Group L

Group L is located in the eastern region of Dakhleh on the north-eastern edge of the modern cultivation (FIGURES 4.4 and 4.15). It comprises four sites, including a temple (Site 61), an adjacent settlement (Site 62), and two occupation sites (Sites 59 and 60) located 1 km to the west and north respectively. The latter two sites also incorporate pottery kilns, although it is unclear whether these were in use during the Ptolemaic Period. There are no cemeteries located in the immediate vicinity of this group, although there is a cemetery in the foothills of the escarpment 3.3 km east of Site 62, while another cemetery is located 4 km to the north-west of Site 62 at Qila el-Dabba (Site 58). Both of these cemeteries appear to have been used during the Ptolemaic Period, although the evidence is meagre.

FIGURE 4.15 Map showing Group L sites.

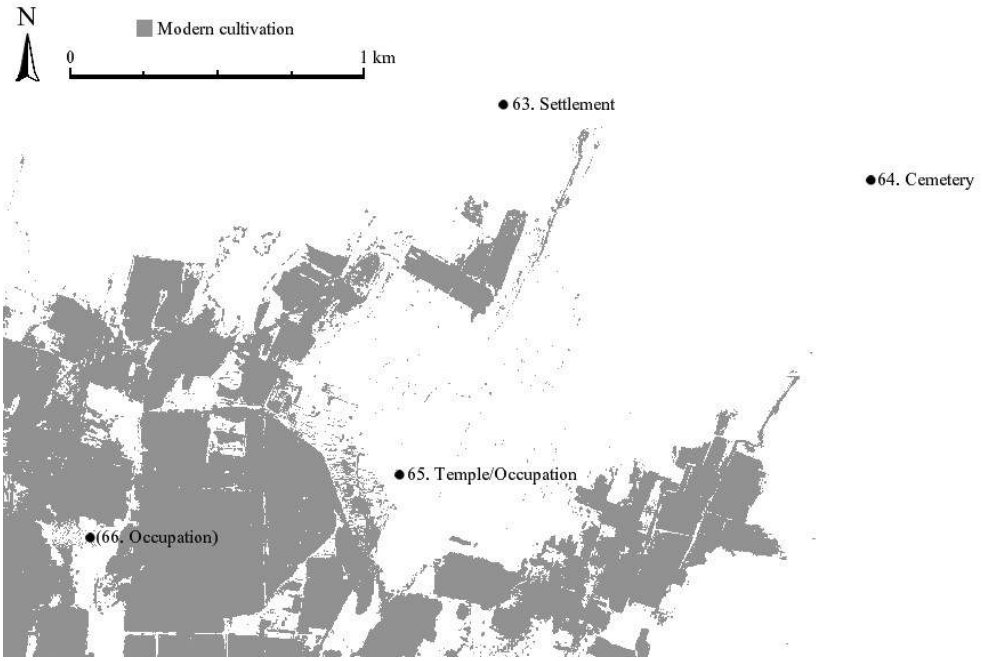


FIGURE 4.16 Map showing Group M sites.

Group M

Group M is located in the eastern region of Dakhleh on the north-eastern edge of the modern cultivation (FIGURES 4.4 and 4.16). It comprises three sites, including a settlement (Site 63), a temple (Site 65) located 1.3 km to the south, and a cemetery (Site 64) located 1.3 km to the east in the low foothills of the escarpment.

Site 63 is located only 3 km to the north-east of ‘Ain Birbiyeh (Site 69; Group N) and may represent a satellite community that was dependent on the latter site. The associated cemetery (Site 64) is extensive and could have functioned as the main cemetery for all of the settlements in this region.

Group N

Group N is located in the eastern region of Dakhleh and incorporates the site of ‘Ain Birbiyeh (Site 69) (FIGURES 4.4 and 4.17). It comprises five sites, including a temple and surrounding settlement (Site 69), a second settlement to the south (Site 70), and three occupation sites to the north (Sites 66, 67 and 68).

It is unclear whether the temple at ‘Ain Birbiyeh was operating during the Ptolemaic Period, although there is some evidence that points to a Late Ptolemaic date for its construction (cf. CHAPTER 4.4 and APPENDIX 4). The fact that the temple is buried to roof level makes it difficult to explore most parts of the building, including the foundations, and so the earliest phases of the temple are not well understood. Certainly, the presence of Ptolemaic pottery in the fill of the gateway points to some form of Ptolemaic Period activity at the site, yet this may derive from the adjacent settlement.

Based on the close proximity of the sites within this group, it is possible that they all belong to a single large settlement. For instance, Site 70 is located only 500 m beyond the southern edge of Site 69, but has been separated from it by the modern road. Likewise, Sites 67 and 68 are located on the northern edge of Site 69, while Site 66 is located approximately 700 m to the north. All three sites are surrounded by modern cultivation, which has obscured the original relationship between them.

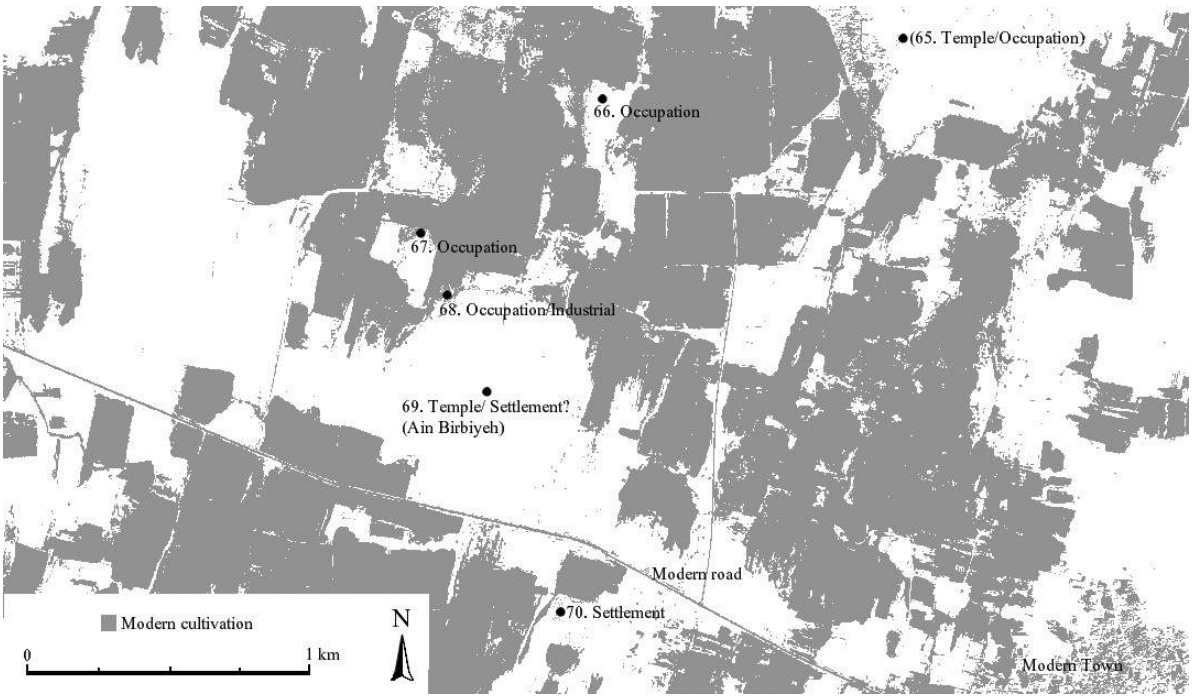


FIGURE 4.17 Map showing Group N sites.

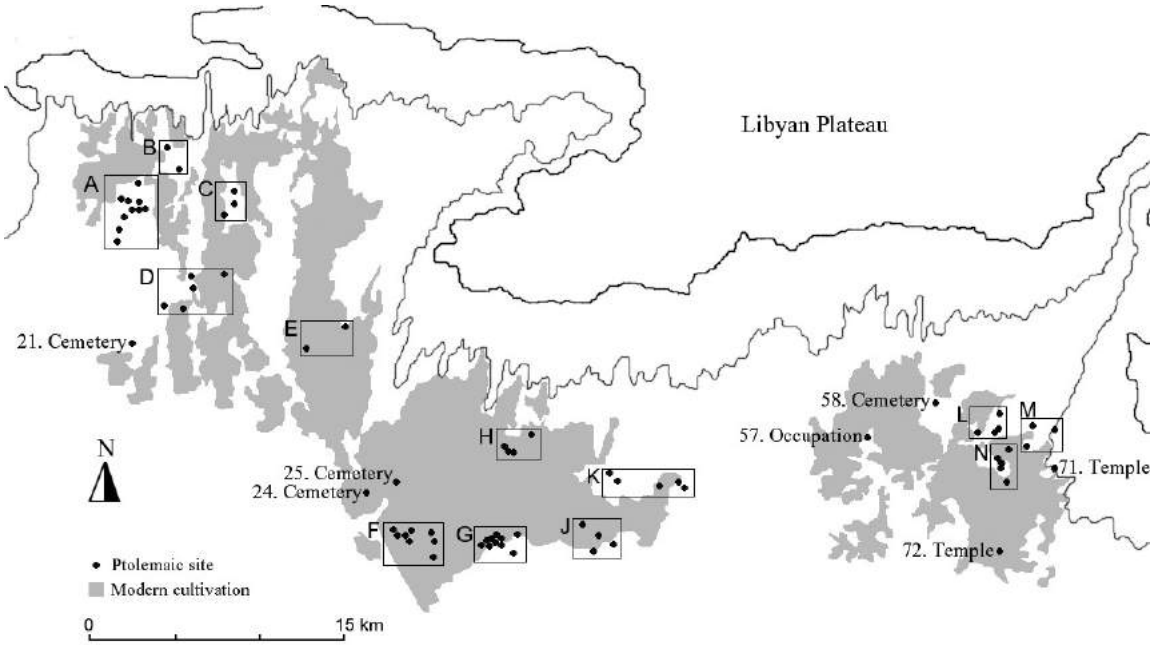


FIGURE 4.18 Map showing sites that do not fall within a Site Group.

ISOLATED SITES

There are seven sites that do not appear to belong to any particular Site Group. Some of these sites might have been isolated in antiquity, whilst others only appear so due to chance preservation. For example, Site 21, a cemetery located in the western region of Dakhleh (FIGURE 4.18), might be connected to Site Group D, although it is also possible that an associated settlement was once located in the area to the north of the site, which is now covered by sand dunes. Likewise, Sites 24 and 25, both cemeteries located in the central region of Dakhleh (FIGURE 4.18), could perhaps be associated with the community centred on Mut al-Kharab (Site Group F).

Site 57 is an occupation site located in the eastern region of Dakhleh (FIGURE 4.18). The nearest site is 4.5 km to the north-east at Qila el-Dabba (Site 58), which is too far away to be considered as directly associated. It is possible that there were other Ptolemaic sites in the vicinity of Site 57, and that they have been obscured by the modern cultivation or are yet to be identified. For instance, the large cemetery of 'Ain Tirghi (31/435-D5-2), which is located only 1.5 km to the south of Site 57, was in use during the Second Intermediate Period, Late Period and Late Roman Period; it is possible that this cemetery was also in use during the Ptolemaic Period and directly associated with Site 57, although currently there is no clear evidence for this.

Site 58 is a cemetery located in the eastern region of Dakhleh at Qila el-Dabba (FIGURE 4.18). The origins of the cemetery date back to the end of the Old Kingdom, when it was used as the burial site for the governors of the oasis, who lived in the nearby settlement at 'Ain Asil (cf. Minault-Gout 1992). There is currently no evidence that 'Ain Asil continued to be occupied during the Ptolemaic Period; however, the cemetery at Qila el-Dabba was reused during the Late and Ptolemaic Periods, perhaps by people living in the settlements to the south-east (Groups L, M and N), who would have viewed Qila el-Dabba as a location of some importance due to the presence of the Old Kingdom mastabas.

Sites 71 and 72 are both located in the eastern region of Dakhleh (FIGURE 4.18). Site 71 is situated in the foothills of the escarpment approximately 3 km east of 'Ain Birbiyeh (Site 69), and comprises three adjacent mud-brick temples. There is no trace of any other structure in the vicinity of the site and it appears to be completely isolated. It is possible that Site 71 had a similar role to that of 'Ain Amur (Site M06), which is located on the eastern edge of the Abu Tartur Plateau (FIGURE 5.1), and which functioned as a stopping point on the Darb 'Ain Amur. Site 71 is located at the western end of the same route and as the final stop before leaving Dakhleh it could have been used to monitor travel to and from the oasis. Site 72 is located 5 km south of 'Ain Birbiyeh, on the southern edge of the modern cultivation and close to the Darb el-Ghubari, which heads east along the southern edge of the Abu Tartur Plateau toward Kharga Oasis. There are no other sites in the vicinity and it is possible that it was used to monitor travel in this direction (cf. CHAPTER 6.5).

SUMMARY

Most of the Site Groups comprise substantial settlements with evidence for temples and one or more associated cemeteries (TABLE 4.3). There are often small occupation sites and minor settlements in the immediate vicinity (within one or two kilometres), which probably represent satellite communities that were dependant on the main settlement. The cemeteries are generally found in close proximity to the major settlements, and the choice of location seems to be dependent on the local landscape. If a settlement is situated close to the foothills of the escarpment, or near the edge of the desert, then these locations have been utilised for cemeteries; however, if neither of these are available, then the cemeteries are situated on nearby hills.

The distribution of sites across the oasis generally corresponds with areas of modern settlement. This is probably due to the fact that both ancient and modern populations have required similar environmental conditions in order to farm successfully. Therefore, the majority of settlements are located in the lowest parts of the oasis depression where there is access to water through springs and wells, and where the land is level enough to enable successful irrigation. There are a few cases where Ptolemaic sites are located in areas that are currently desert and covered by sand dunes (e.g. Site Group A). These sand dunes, which cover everything in their path, are undoubtedly one of the main reasons why these sites were abandoned and are no longer inhabited today. This is particularly evident in the western part of the oasis where large mobile 'dune belts' are slowly making their way east and have forced the abandonment of several modern settlements (Mills 1980a: 253; Kleindienst *et al.* 1999: 27, 41).

Processes of site abandonment and preservation are greatly influenced by factors such as environment and location. For instance, Site Group A has been largely covered by sand, which has prevented modern settlement from encroaching on the area, whilst also preserving the sites from damage by wind erosion and other destructive factors. This has resulted in the preservation of a large amount of settlement remains in addition to the stone temple and the cemeteries in the surrounding hills. In contrast, Site Group F, which incorporates Mut al-Kharab, is in an area that is relatively unaffected by sand dunes and wind-blown sand. This has enabled a settlement to exist here undisturbed for several thousand years. The result is that almost all of the ancient settlement is obscured by the modern town of Mut, and all that remains is the temple enclosure and the cemeteries on the adjacent hills. Hence our impression of these two site groups today is quite different.

4.6 General Discussion

Table 4.4 illustrates the periods of use evident at each Ptolemaic site in the oasis (within the range of Old Kingdom to Late Roman). It is evident that only three sites were also occupied during the Old Kingdom, which may be attributed to one or more factors; a) environmental conditions had changed substantially between the Old Kingdom and the Ptolemaic Period, causing different areas of the oasis to be inhabited; b) the introduction of new technology and agricultural practices in the Ptolemaic Period, such as the *saqiya* enabled new areas of land to be cultivated that had previously been inaccessible (Mills 1999a: 173); c) the occupation of sites in later periods of Egyptian history has either destroyed or obscured the Old Kingdom remains (such as is the case at Amheida (Site 13) and Mut al-Kharab (Site 29)); d) there was a much smaller number of sites in the oasis during the Old Kingdom than in the Ptolemaic Period, and therefore very few sites are found to have continued in use between these two periods. It is probably a combination of all these factors that has impacted on the results.

It is also evident looking at Table 4.4 that the number of sites in the oasis increased from the Late Period through to the Early Roman Period. This is illustrated more clearly in Table 4.5. It is apparent that between the Late Period and the Ptolemaic Period the oasis experienced an increase of 106% in the total number of occupied sites. Furthermore, between the Ptolemaic Period and Early Roman Period we see an increase of 178% in the total number of sites. Based on this information we can see that the number of sites in the oasis increased relatively steadily from the Late Period, through the Ptolemaic Period and into the Early Roman Period. This argues against the idea encountered regularly in the published literature, that the oasis experienced a dramatic increase in population during the Roman Period (cf. Chapter 1). Rather, it appears that we should look for the beginning of this population increase in the Ptolemaic Period and that we should view the subsequent Roman expansion more as a gradual development.

Of course, these observations are based on an assumption that needs to be qualified; I have assumed that the total number of sites in the oasis during any given period is directly proportional to the overall size of the population. Ideally, we should consider not only the total number of sites, but also the number of each type of site (i.e. settlement; cemetery) and the size of each site (i.e. surface area; number and size of buildings; number of tombs); however, this is clearly not possible. Most of the sites in the catalogue have been subject to only cursory investigation, and details relating to the size and number of buildings, and the number of tombs are generally only estimates. Furthermore, this study examines both Late Period and Roman Period remains only in a superficial way and only as they relate to the Ptolemaic Period remains, thus preventing a complete and detailed examination of the evidence. It appears that in order to make observations about the oasis population and its development over time, we need to accept that there is a correlation between the total number of sites and the size of the population, with the provision that this is only a general correlation.

Based on the information presented in this chapter, several important conclusions can be drawn. Perhaps the most significant of these is that we should now set aside the theory that there is very little evidence for Ptolemaic activity in Dakhleh, as a substantial amount of evidence can now be recognised. A total of seventy-two Ptolemaic sites have so far been identified and it is possible that future research will reveal more. The majority of these sites are clustered into groups, which appear to represent distinct communities, and major communities appear to have existed at several locations, namely at Dayr al-Haggar, Mut al-Kharab, ‘Ain al-Azizi, and ‘Ain Birbiyeh.

The people that lived in Dakhleh during the Ptolemaic Period were part of a highly complex and stratified society. This is evidenced by the diverse range of sites encountered, from extensive settlements with large temples through to simple farmhouses. It is also demonstrated by the diversity in burial types, from simple pits and single-chambered tombs with minimal goods through to large multi-chambered tomb structures with mummified bodies, stone and ceramic coffins and large numbers of tomb goods. The oasis community comprised a mixture of people who fulfilled a variety of occupations; obviously many of the inhabitants were farmers, but other professions are also evident. The existence of a local pottery industry points to the presence of potters within the community (CHAPTER 3), whilst ostraka from Mut al-Kharab and Qaret el-Muzawwaqa attest a range of temple personnel, including scribes and priests of various kinds (Nur el-Din 1982; Vittmann 2012; CHAPTER 2.5).

The population of the oasis was comparatively small during the Late Period, yet we now know that it increased substantially during the Ptolemaic Period and seems to have continued to do so during the Roman Period. The cause of this population rise is not yet clear, although we might speculate that it was the result of a deliberate strategy of settlement and agricultural exploitation that was implemented by the Ptolemies. This is an idea to which I will return (CHAPTER 6), but before doing so I will examine evidence for Ptolemaic activity from Kharga, Farafra, Bahariya and Siwa, in order to place Dakhleh within its broader context and to determine whether or not the situation in Dakhleh was unique or part of a broader settlement pattern.

TABLE 4.3 List of Ptolemaic sites in Dakhleh Oasis.

Site	DOP Map Ref.	Name	Group	Settlement	Occupation	Temple	Cemetery
01	33/390-E9-1		A	+			
02	33/390-E9-2		A				+
03	33/390-F9-1/3A	Winlock's Site 3A	A		+	?	
04	32/390-E1-1		A	+			
05	32/390-D2-2	Bir Talata el-Mahoub	A				+
06	33/390-F10-1		A		+		
07	33/390-F9-1	Dayr al-Haggar	A	+		?	
08	33/390-F8-1A		A	+			
09	33/390-F10-4		A		+		
10	33/390-F10-3		A	+			+
11	33/390-H6-2		B	+			
12	33/390-H7-1	Qaret el-Muzawwaqa	B		+	?	+
13	33/390-L9-1	Amheida	C	+		+	
14	33/390-K9-4		C		?		+
15	32/390-K1-1		C				+
16	32/390-I4-1		D		+		?
17	32/390-K4-1		D				+
18	32/390-I4-2		D	+			
19	32/390-H5-1		D		+		
20	32/390-I6-2		D	?	+		
21	32/390-F7-1		D?				+
22	32/405-A8-1		E	+		?	
23	32/405-C7-2		E				+
24	31/405-D7-2		F?				+
25	31/405-F6-1		F?				+
26	31/405-F9-1	Bir Shaghala	F				+
27	31/405-F9-5		F				+
28	31/405-G9-2	Tell el-Marqula	F				+
29	31/405-G10-1	Mut al-Kharab	F	+	+	+	?
30	31/405-G9-3	Humayat B	F				+
31	31/405-H9-2		F				+
32	31/405-H10-1		F		+		
33	31/405-H10-3		F				+
34	31/405-K10-4		G	?	+		
35	31/405-K10-7		G				+
36	31/405-K10-3		G		+		
37	31/405-K10-8		G		+		

Site	DOP Map Ref.	Name	Group	Settlement	Occupation	Temple	Cemetery
38	31/405-L10-1		G				+
39	31/405-L9-2		G		+		
40	31/405-L10-2		G		+		
41	31/405-L10-3		G				+
42	30/405-M1-1		G				+
43	31/405-M9-1	‘Ain al-Azizi	G	+		+	
44	31/405-L4-1		H		+		
45	31/405-L4-2		H			+	
46	31/405-M4-1		H				+
47	31/405-N3-1		H		+		
48	31/420-B9-1		J	+			
49	31/420-C9-1		J		+		
50	31/420-B10-1	Beit el-Qaresh	J				+
51	31/420-D10-1		J				+
52	31/420-C5-1	Kellis West Cemetery	K?				+
53	31/420-D6-1	Ismant al-Kharab	K?	+		?	
54	31/420-G6-4		K		+		
55	31/420-G6-2	Qasr el-Haleka	K		+	+	
56	31/420-H7-1		K				+
57	31/435-D3-2		?		+		
58	31/435-G2-1/2	Qila el-Dabba	?				+
59	31/435-J4-2		L		+		
60	31/435-L2-5		L		+		
61	31/435-K3-1		L			?	
62	31/435-K3-2		L	+			
63	31/435-N3-1		M	+			
64	31/435-P3-1		M				+
65	31/435-M4-1	El-Qusur	M		+	?	
66	31/435-L4-1		N		+		
67	31/435-K5-3		N		+		
68	31/435-K5-2		N		+		
69	31/435-K5-1	‘Ain Birbiyeh	N	+		+	
70	31/435-L6-1		N	+			
71	31/435-N6-2		?		?	?	
72	30/435-K1-5		?		?	?	

TABLE 4.4 Additional phases of activity evident at Ptolemaic sites in Dakhleh Oasis (light grey indicates a tentative date only).

Site	Group	Old Kingdom	New Kingdom	TIP	Late Period	Ptolemaic Period	Early Roman	Late Roman
01	A							
02	A							
03	A							
04	A							
05	A							
06	A							
07	A							
08	A							
09	A							
10	A							
11	B							
12	B							
13	C							
14	C							
15	C							
16	D							
17	D							
18	D							
19	D							
20	D							
21	D?							
22	E							
23	E							
24	F?							
25	F?							
26	F							
27	F							
28	F							
29	F							
30	F							
31	F							
32	F							
33	F							
34	G							
35	G							
36	G							
37	G							
38	G							
39	G							
40	G							
41	G							
42	G							
43	G							
44	H							
45	H							
46	H							
47	H							
48	J							
49	J							
50	J							
51	J							
52	K?							
53	K?							
54	K							

Site	Group	Old Kingdom	New Kingdom	TIP	Late Period	Ptolemaic Period	Early Roman	Late Roman
55	K							
56	K							
57	?							
58	?							
59	L							
60	L							
61	L							
62	L							
63	M							
64	M							
65	M							
66	N							
67	N							
68	N							
69	N							
70	N							
71	?							
72	?							

TABLE 4.5 Number of sites in Dakhleh Oasis during the Late Period, Ptolemaic Period and Early Roman Period respectively.

Total number of Late Period sites[4]	35	---
Number of Late Period sites continuing in use during the Ptolemaic Period	17 (49%)	↓
Total number of Ptolemaic Period sites	72	106% increase
Number of Ptolemaic Period sites continuing in use during the Early Roman Period	50 (69%)	↓
Total number of Early Roman Period sites[5]	200	178% increase

[4] This number is based on the results of a study conducted by Caroline Hubschmann on Late Period activity in Dakhleh Oasis (cf. Hubschmann 2009: 4).
[5] This number is based on the DOP Index List of Archaeological Sites Surveyed (Churcher and Mills 1999: 260–263), which has been modified in order to take into account the results of the current study.

CHAPTER 5

PTOLEMAIC ACTIVITY IN THE WESTERN DESERT

As Ptolemaic material from the Western Desert has been scarce so far, even a small discovery…is helpful.

Bagnall and Davoli (2011: 139).

There are archaeological remains of the Ptolemaic period in these oases, but they are enormously outweighed by those of the Roman period.

Bagnall and Rathbone (2004: 248).

Most of the brick buildings existing at Bahrīyah and generally attributed to Roman times, might be of Ptolemaic date but this can be determined only through future excavations.

Fakhry (1974: 66).

5.1 INTRODUCTION

In the previous chapters I have demonstrated that a significant Ptolemaic presence can be identified in Dakhleh Oasis. In this chapter I examine evidence from the other oases of the Western Desert in order to determine whether Dakhleh reflects a unique case, or whether the situation there is reflective of a broader pattern of Ptolemaic settlement in the Western Desert. Below, I provide a summary of the Ptolemaic evidence from the major oases, namely Kharga, Farafra, Bahariya and Siwa, as well as evidence from a number of smaller oases that are today uninhabited (FIGURE 5.1). This evidence has been brought together in the form of a site catalogue for ease of reference (APPENDIX 6), and it is there that further details about individual sites can be found.

Whereas for Dakhleh it was possible to consult unpublished field notes and in some instances examine material first-hand, information about sites in other parts of the Western Desert has been necessarily limited to that which is available in the published literature. In a few cases, I have gained access to reports on unpublished material thanks to a number of colleagues who have very kindly shared this information. There is a noticeable lack of information for some sites in the catalogue, whilst for others a great deal has been published. Some sites are subject to ongoing investigation but are currently not published in any detail, and so little can be said about them until this situation changes. This is the case for Farafra Oasis more broadly, which I think must contain some Ptolemaic remains, yet has only recently become the focus of investigation by an Italian mission; so far, only preliminary results from their survey have been published (CHAPTER 5.3).

Despite these limitations, it has been possible to identify a wide range of Ptolemaic evidence from the Western Oases. The number of Ptolemaic sites in Kharga, Bahariya and Siwa respectively is substantially lower than the number identified in Dakhleh, although, given that Dakhleh is largest in terms of arable land, such a discrepancy is not that surprising. It is also possible that Ptolemaic pottery has gone unrecognised in the other oases, as has been the case in Dakhleh until recently. This situation

is beginning to change as more and more sites are discovered and investigated, and an increasing amount of Ptolemaic material comes to light.

5.2 KHARGA OASIS

Kharga and Dakhleh were closely linked throughout Egyptian history, largely due to their relatively close proximity. During the Ptolemaic Period the two oases were known together as the Southern Oasis (*wḥꜣt rsy.t*), or Kenmet (*knm.t*) in religious texts (Kaper 1992: 119–120), and appear to have comprised a single administrative district. The capital of the Southern Oasis was at Hibis, as evidenced by its designation as the Hibite nome (Spiegelberg 1913: 68; Wagner 1987: 142–143), although Dakhleh appears to have had a local administrative centre at Mut al-Kharab (CHAPTER 2). As the capital, Hibis was probably the largest settlement in Ptolemaic Kharga, which is supported by the impressive size of the temple complex (cf. FIGURE A6.5). The temple was originally built during the Persian Period, and was subsequently expanded under the Ptolemies (Winlock 1941: 33–35), and 'the whole site seems to have flourished throughout the Ptolemaic period' (Winlock 1910: 226).

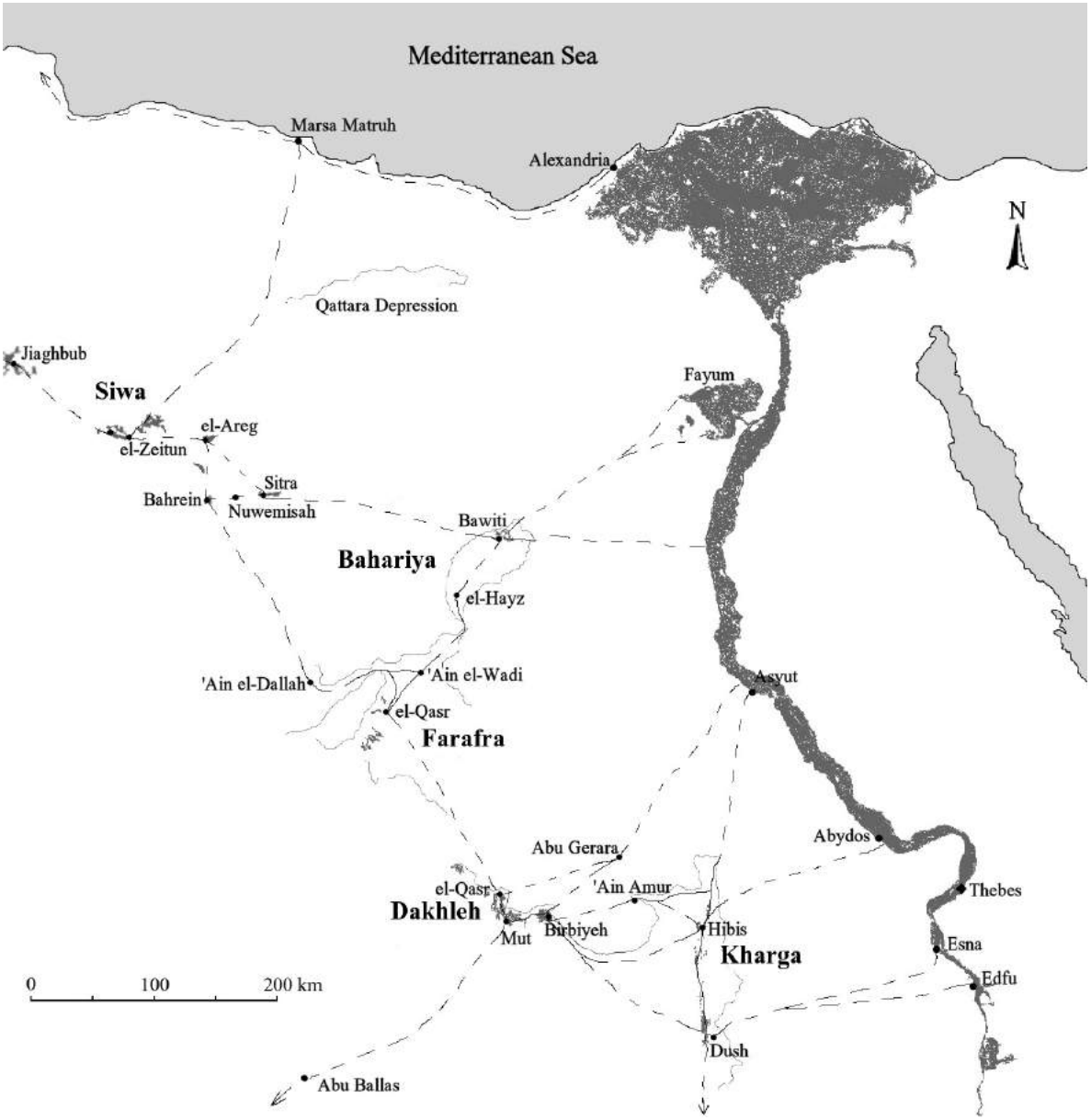


FIGURE 5.1 Map of Egypt's Western Desert.

Inscriptional evidence from the temple (Winlock 1941: 33, 39), along with Demotic ostraka (Kaplony-Heckel 2000) and coins (Newell 1941), all of Ptolemaic date, point to activity at the site during this period, although very little is known about the size and layout of the surrounding settlement. This settlement must have once surrounded the temple, but is now almost completely obscured by the modern cultivation. Since the initial excavations were conducted by the Metropolitan Museum of Art at the beginning of the 20th century (Winlock 1909; 1910; 1941), most of the subsequent work has focussed on the epigraphic evidence from the temple, including studies of the decoration and inscriptions (Cruz-Uribe 1988; Davies 1953; Evelyn-White and Oliver 1938; Klotz 2006), and the graffiti (Cruz-Uribe 2008). The archaeological evidence remains to be studied in detail.

The small temple of Nadura sits atop a hill about two kilometres southeast of Hibis. This temple was reported as Ptolemaic in the bulletin of the Metropolitan Museum of Art in 1908 (Lythgoe 1908: 85), yet has been subsequently dated as Roman (most recently Klotz 2012). The preserved inscriptions date to the reigns of Hadrian and Antoninus Pius; however, neither the temple nor the surrounding settlement have been excavated (Klotz 2012: 297), therefore we cannot eliminate the possibility that the temple and/or the settlement were in use during the Ptolemaic Period. A similar situation occurs at Qasr el-Zaiyan where a temple dedicated to Amun of Hibis is preserved. The temple complex is largely built of mud-brick, with a stone sanctuary surrounded by a series of mud-brick rooms and an imposing mud-brick temenos wall (Aufrère *et al.* 1994: 102; Klotz 2009). According to a Greek dedicatory inscription, both the sanctuary and pylon were restored by Antoninus Pius in 140 CE (Klotz 2009: 17). Several authors have stated that the temple was originally built in the Ptolemaic Period (Cruz-Uribe 1999: 489–490; Porter and Moss 1952: 293; Wilkinson 2000: 237); however, Klotz (2009: 19–20) pointed out that there is no actual evidence for this besides the general appearance of the earlier structures. The original temple may have been constructed during the Persian Period or possibly earlier (Klotz 2009: 20). Recent geophysical survey conducted in the area to the west of the temple has revealed an earlier building complex, which has been identified as either a temple or tomb superstructure (Atya *et al.* 2005; Kamei *et al.* 2002). This demonstrates that the site was in use before the Roman Period, but as yet the date of these earlier structures has not been ascertained.

The sandstone temple at Qasr el-Ghueita provides much clearer evidence for Ptolemaic activity, with inscriptional evidence from the reigns of Ptolemies III, IV and IX (Darnell *et al.* 2013: 18–20; Porter and Moss 1952: 291–293). The temple has only recently become the subject of detailed epigraphic recording by the Theban Desert Road Survey, and some of the reliefs have now been published (Darnell *et al.* 2013: 29–31). The inscriptional evidence is invaluable for the study of Ptolemaic activity in the Western Desert, as evidence of this kind is very rare. In one inscription Ptolemy III tells us that he built the temple 'in order to direct divine offerings to Thebes, for his father' (Darnell *et al.* 2013: 31), and elsewhere he states that he provisioned the temple with products of Djesdjes (Bahariya) (Darnell *et al.* 2013: 31). It seems that in the Ptolemaic Period, Qasr el-Ghueita formed part of a trade network that linked the Western Oases with the Nile Valley. Evidently, offerings were sent from Bahariya to Kharga and then on to Thebes, which may reflect a deliberate policy on behalf of the Ptolemies to supplement the stores of the Upper Egyptian temple estates with oasis produce (Darnell *et al.* 2013: 30–31; cf. CHAPTER 6.3).

A large Ptolemaic community appears to have existed in the southern part of Kharga, centred on the sites of 'Ain Manawir and Dush. A mission from l'Institut Français d'Archéologie Orientale (l'IFAO) has been working at Dush since 1976 (Reddé 1990; Reddé *et al.* 2004), and at the adjacent site of 'Ain Manawir since 1994 (Wuttmann *et al.* 1996; 1998). Both sites have yielded evidence for Ptolemaic activity; however, it is generally difficult to identify this amongst the Persian and Roman period remains. The Ptolemaic evidence from 'Ain Manawir largely comprises pottery, as well as a small number of ostraka (Wuttmann *et al.* 1998: 381, 438, 461), which together points to the presence of a Ptolemaic settlement at the site, although only traces of this have been revealed. Ptolemaic pottery and

ostraka have also been found at Dush, along with Ptolemaic coins, which likewise points to the presence of a settlement there (Reddé *et al.* 2004: 172, 211–215). Evidence for Ptolemaic activity has also been identified at ‘Ain Ziyada to the east of Dush, which appears to represent a small settlement with associated cemeteries, and which was clearly part of the broader ‘Ain Manawir/Dush community. An interesting discovery from ‘Ain Ziyada is two ostraka of Ptolemaic date that preserve contracts for the sale of water usage from the *qanat* in which they were found (Chauveau 2008: 434).

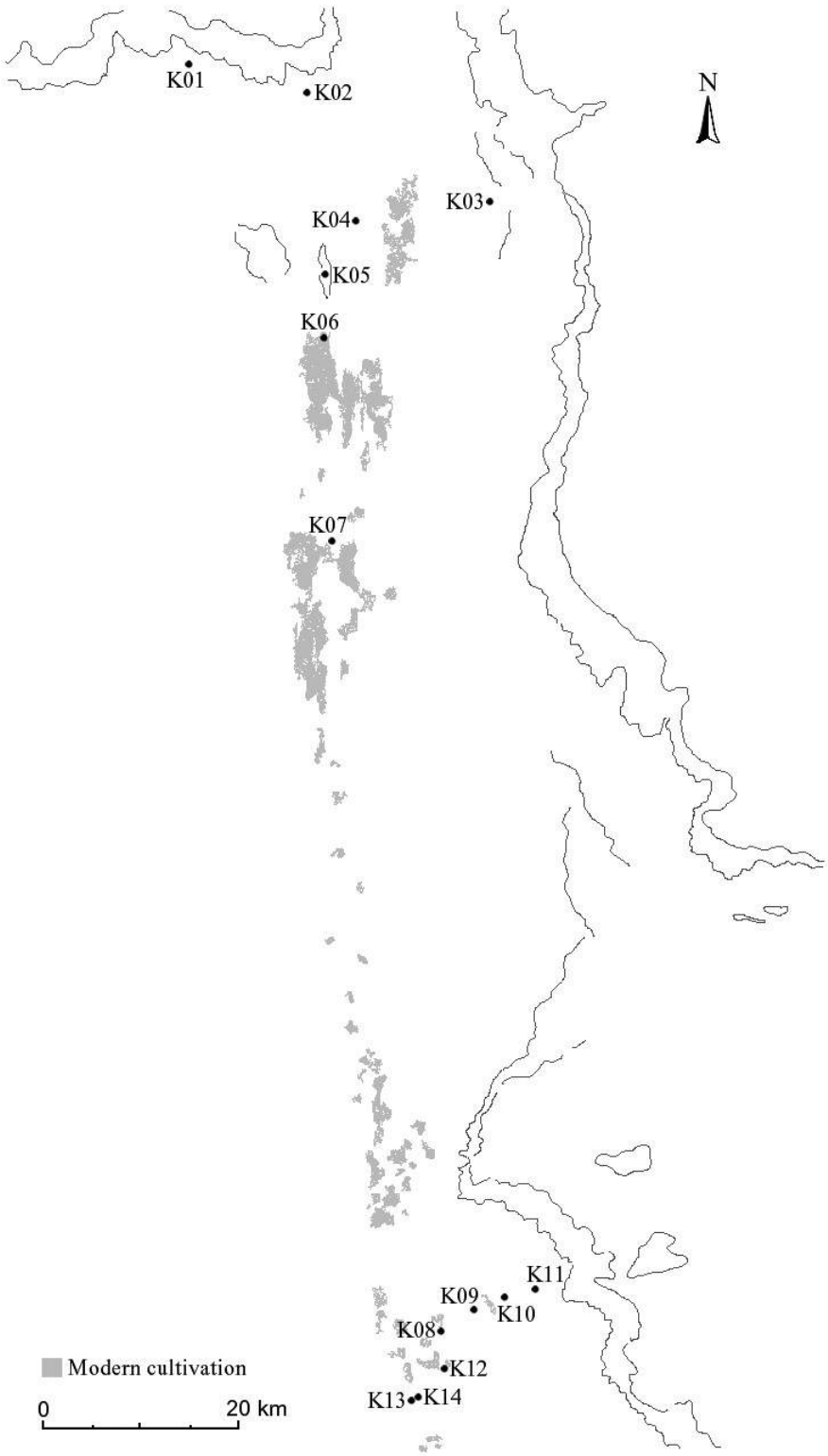


FIGURE 5.2 Map of Kharga Oasis showing locations of Ptolemaic sites. Site numbers refer to those listed in TABLE 5.1.

In 2001, l'IFAO began a survey of southern Kharga, with the aim of locating and recording archaeological sites from all periods of history (Wuttmann in Mathieu 2002: 482–483; 2003: 525–526; 2004: 621–623). More than twenty Ptolemaic sites have been recorded in the region (Wuttmann in Mathieu 2004: 622), including settlements, cemeteries and small habitations, which points to a relatively dense population during Ptolemaic times. Details for most of these sites have not yet been published, so only a selection is included in APPENDIX 6. Based on the available evidence it seems that a major Ptolemaic settlement existed at Dush and 'Ain Manawir, with numerous dependent villages and farmhouses scattered throughout the surrounding area.

Ptolemaic remains are also encountered in the northern part of Kharga, with communities at El-Deir and 'Ain Dabashiya, and possibly also at Umm el-Dabadib and 'Ain Labakha. The clearest evidence comes from El-Deir, which has been investigated since 1998 by the Alpha-Necropolis Project, headed by Françoise Dunand (Dunand 2004; Dunand and Lichtenberg 2005a; Dunand *et al.* 2012). The results of this work demonstrate that the cemeteries of El-Deir were in use from the Persian Period through to the Late Roman Period (Dunand *et al.* 2012), with evidence for Ptolemaic use in the form of pottery and other tomb goods (Brones 2004; 2010: Figs 268–277, 375–380; Dunand 2004: 569–570). Ptolemaic evidence has been found elsewhere at the site, in the form of coins, Demotic ostraka and pottery (Dunand *et al.* 2010: 47), and it seems that the small mud-brick temple was originally constructed during this period (Tallet *et al.* 2012: 353). The cemetery at 'Ain Dabashiya has likewise yielded evidence for Ptolemaic activity in the form of painted coffins, tomb furnishings and pottery (Dunand *et al.* 2013). The associated settlement was likely also in use at this time; however, there is currently no clear evidence for this.

Umm el-Dabadib and 'Ain Labakha, both located in the extreme north of the oasis, have also yielded some potential Ptolemaic evidence, although nothing definitive has been published as yet. The site of 'Ain Labakha has been investigated by members of the Kharga Inspectorate, who reported a Ptolemaic date for one of the mud-brick temples (Reddé 1999: 380), although it is not clear what evidence this is based on. Demotic ostraka of possible Late Ptolemaic date have been discovered at the site (Kaplony-Heckel 1997: 526, 230), as well as two Ptolemaic coins (Ibrahim *et al.* 2008: 25), whilst the cemetery, which was explored in conjunction with the Alpha Necropolis team, apparently dates to the Ptolemaic and Roman periods (Ibrahim *et al.* 2008). The North Kharga Oasis Survey (NKOS), directed by Corinna Rossi and Salima Ikram, has also surveyed the remains, but did not report any Ptolemaic evidence (Rossi and Ikram 2010). The nearby site of Umm el-Dabadib has been investigated by the same team, who report that there is potential evidence for Ptolemaic activity (Rossi and Ikram 2006: 281–283), although as yet no detailed information has been published.

Altogether there is a great deal of evidence for Ptolemaic activity in Kharga. Fourteen Ptolemaic sites are listed in TABLE 5.1 (cf. APPENDIX 6); however, at least ten additional Ptolemaic sites have been discovered in southern Kharga that remain unpublished (Wuttmann in Mathieu 2004: 622). Future work might also reveal Ptolemaic phases of occupation at Nadura and/or Qasr al-Zayan, thus, the total number of Ptolemaic sites in Kharga could increase substantially in the future.

It seems that several large Ptolemaic communities existed in the oasis, with a major community at Hibis, the administrative centre of the region (FIGURE 5.2). A major community probably also existed at Qasr el-Ghueita, where an important temple was located, which might have also incorporated the settlement and temple at Qasr el-Zaiyan. The many Ptolemaic sites in southern Kharga likely also belonged to a single large community, probably with a major settlement at 'Ain Manawir or Dush. In the north, a major settlement existed at El-Deir, whilst another probably existed at 'Ain Dabashiya, and it is possible that one or both of these settlements was part of the broader community based around Hibis due to their close proximity to the latter site. It also appears that there were other Ptolemaic settlements further north at Umm el-Dabadib and 'Ain al-Labakha, although the exact size of these is currently unknown.

TABLE 5.1 List of Ptolemaic sites in Kharga Oasis.

Site #	Name	Settlement	Occupation	Temple	Funerary
K01	Umm el-Dabadib	?		?	+
K02	‘Ain el-Labakha	?		?	+
K03	El-Deir	+		+	+
K04	‘Ain Dabashiya	?		?	+
K05	Gebel el-Teir		+		
K06	El-Hibis	+		+	?
K07	Qasr el-Ghueita	+		+	
K08	KS010		+		
K09	‘Ain Manawir	+		?	
K10	Dush	+		?	?
K11	‘Ain Ziyada	+			?
K12	KS005		+		
K13	KS008				+
K14	KS009		+		

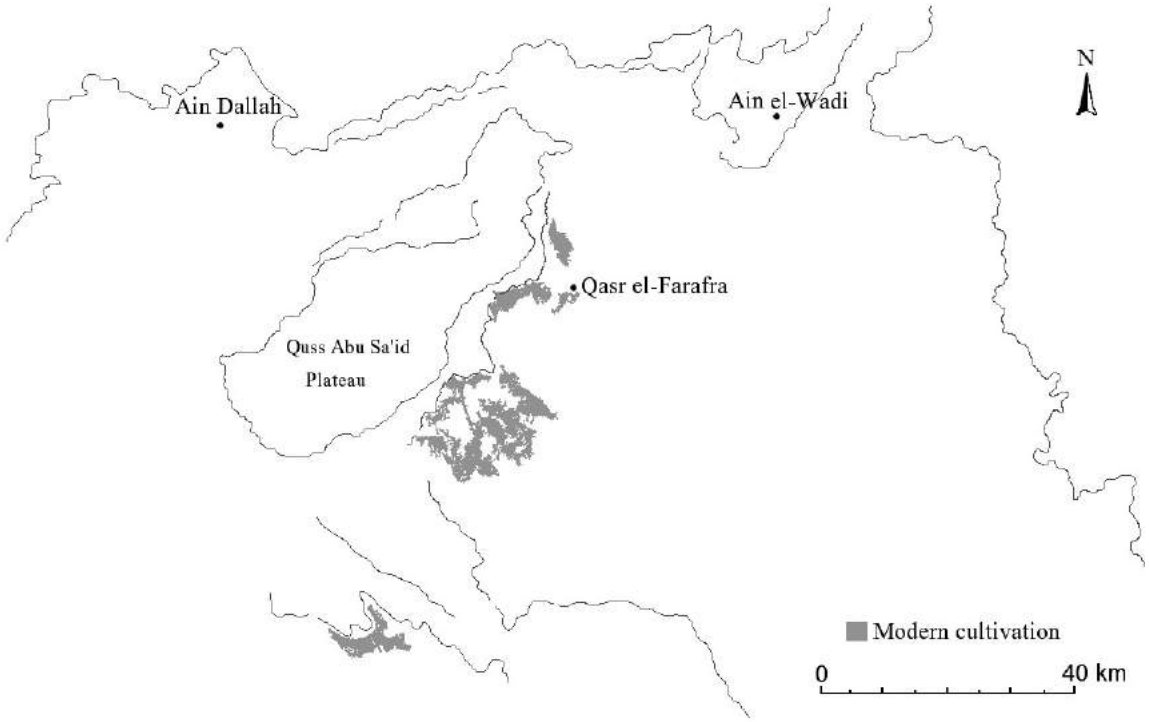


FIGURE 5.3 Map of Farafra Oasis.

5.3 FARAFRA OASIS

Despite the fact that Farafra has been identified as Ta-iht (*tꜣ-iḥw*), one of the seven oases in the Edfu Oasis List (Aufrère 2000: 125; Fakhry 1939b: 640–641; Kaper 1992: 118; Osing 1985: 185; Sethe 1920: 50; Winlock 1936: 58; cf. CHAPTER 1.4), no clear evidence for Ptolemaic activity has been discovered in this oasis to date. Fakhry visited Farafra on several occasions during the middle of the 20th century and surveyed the archaeological remains (Fakhry 1938; 1939b; 1940; 1950; 1974: 157ff). He identified the remains of mud-brick structures and surface pottery at several sites, such as at 'Ain el-Wadi, which he dated as Roman or 'perhaps earlier' (Fakhry 1950: 50; FIGURE 5.3).

Recent survey work by a mission from the University of Tuscia has revealed extensive settlement and cemetery remains in the region around Qasr el-Farafra (Buongarzone 2012; Buongarzone and De Angeli 2011; Finocchi and Medaglia 2011; FIGURE 5.3), as well as an extensive system of *qanats* (Buongarzone *et al.* 2010; 2013; De Angeli 2013). So far, only a small selection of surface pottery collected during the survey has been published (Buongarzone *et al.* 2010: Pl.3; Finocchi and Medaglia 2011), and none of this appears to be any earlier than Roman in date; however, future work might reveal evidence for Ptolemaic activity. For instance, a study of the various tomb types encountered in Farafra has identified at least two examples (Tombs B1 and B4 at 'Ain el-Balad) that might be of Ptolemaic date based on stylistic parallels with tombs from the other oases (Buongarzone 2012: 146–147).

5.4 BAHARIYA OASIS

Bahariya, known during the Ptolemaic Period as the Northern Oasis (*wḥꜣ.t mḥt.t*), or as Djesdjes (*ḏsḏs*) in religious texts (Kaper 1992: 119–120), is widely accepted as the fourth oasis in the Edfu Oasis List (Aufrère 2000: 126; Fakhry 1939b: 640–641; Kaper 1992: 118; Osing 1985: 185; Sethe 1920: 50; Winlock 1936: 58; cf. CHAPTER 1.4). Djesdjes, along with Kenmet (Kharga and Dakhleh), is regularly identified as a wine-producing region in Ptolemaic temple inscriptions from the Nile Valley (cf. CHAPTER 1.4, TABLE 1.2). The name Djesdjes also appears in an inscription of Ptolemy III at Qasr el-Ghueita in Kharga (Darnell *et al.* 2013: 31). The area around modern El-Qasr/Bawiti appears to have been the most important region in Bahariya from the end of the Old Kingdom, and it probably continued as such into the Roman Period, as the capital Psôbthis was probably located in the vicinity (Colin 2013: 174–177). Based on the number of Ptolemaic sites in this area, it is likely that this was also the location of a major community during the Ptolemaic Period, which perhaps comprised a number of adjacent settlements (FIGURES 5.4 and 5.5).

There appears to have been a Ptolemaic community in the vicinity of Qasr al-Megysba, which incorporated the temple of Alexander the Great and the so-called Valley of the Golden Mummies (FIGURE 5.5). The latter is a cemetery made famous by the presence of many well-preserved gilded coffins, which appear to date primarily to the Late Ptolemaic and Early Roman Periods based on the style of the burials and the associated finds (Hawass 2000: 49). Excavations have been conducted by the SCA, but are yet to be published in any detail so it is difficult to determine to what extent this cemetery was used during Ptolemaic times; however, it does appear to point to the existence of a large and relatively wealthy population here during the Late Ptolemaic and Early Roman periods. Traces of a settlement, perhaps of Ptolemaic or Roman date, can be found at the adjacent site of el-Tebanieh (Fakhry 1950: 85), and the temple of Alexander at Qasr al-Megysba, which was perhaps built during or just after his reign, appears to have continued in use during the Ptolemaic Period (Fakhry 1941b: 828; 1950: 47; 1974: 100–101; Hawass 2000: 198).

A second community probably existed in the area of modern El-Bawiti. Whilst the original settlement is today completely obscured by the modern town, its existence is suggested by the presence of Ptolemaic finds at a number of sites within the area (FIGURE 5.5). There appears to have been a

Ptolemaic cemetery at ‘Ain al-Bishmu (Fakhry 1950: 83–84), as well as an animal cemetery, containing ibis and falcon burials, at Qaret al-Faragi (Fakhry 1950: 30–37; 1974: 65, 91–97). The SCA has identified traces of a temple dedicated to the god Bes amongst the modern houses, which is thought to have been constructed during the Ptolemaic Period based on the associated finds (Hawass 2000: 169–173). Investigations by the SCA and l’IFAO at the nearby Temple of Herakles have also identified evidence for Late Ptolemaic activity in the form of pottery (Colin *et al.* 2000: 156). Further traces of Ptolemaic activity have also been identified by l’IFAO at nearby Qaret al-Toub, in the form of Ptolemaic coins (Van Heesch 2012: 124), and at Qasr Allam, where possible Ptolemaic ostraka have been found (Mathieu 2003: 537). The evidence is not abundant, yet taken together seems to point to the presence of a Ptolemaic settlement here.

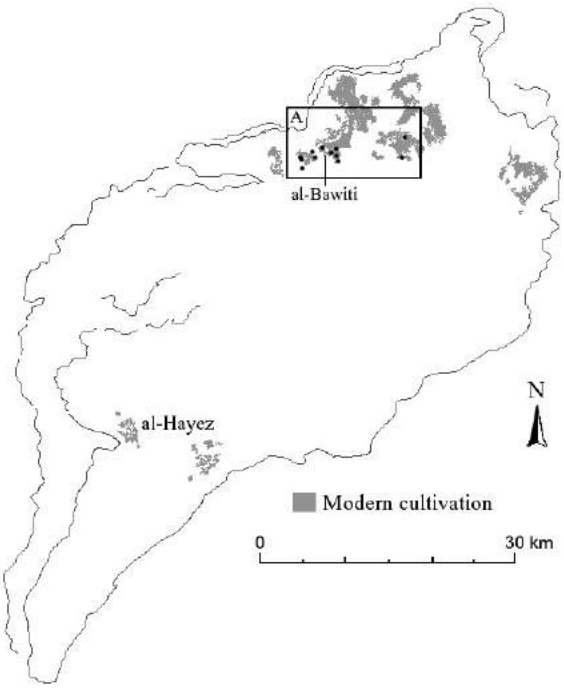


FIGURE 5.4 Map of Bahariya Oasis; FIGURE 5.5 for Inset A.

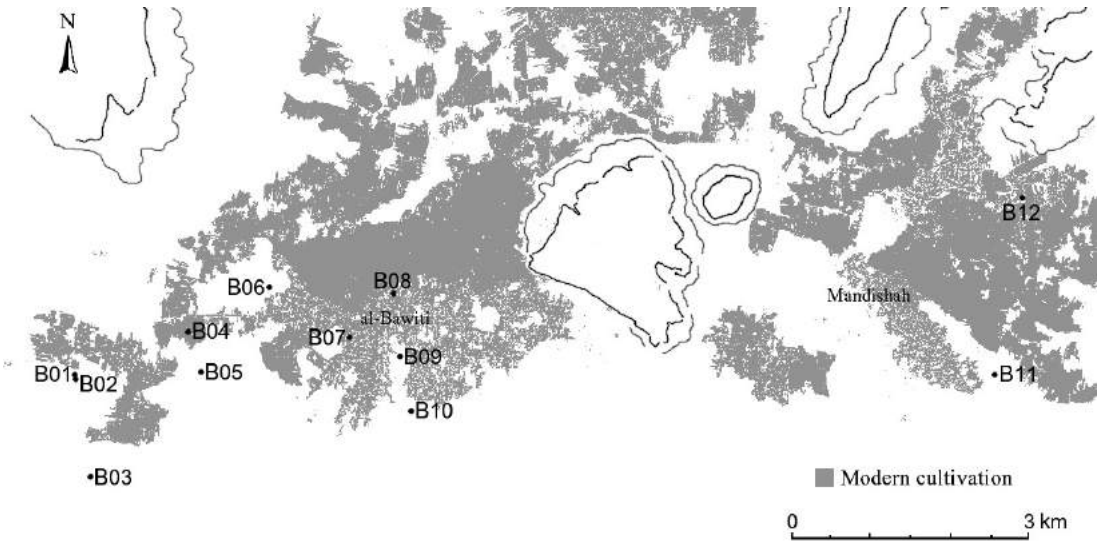


FIGURE 5.5 Map of northern Bahariya Oasis showing locations of Ptolemaic sites. Site numbers refer to those listed in TABLE 5.2.

TABLE 5.2 List of Ptolemaic sites in Bahariya Oasis.

Site #	Name	Settlement	Occupation	Temple	Funerary
B01	El-Tebanieh	?		?	
B02	Qasr al-Megysba		+	+	
B03	Valley of the Golden Mummies				+
B04	al-Ayoun			?	
B05	Qasr Allam		?		
B06	Qaret al-Toub		?		
B07	El-Bawiti (Bes Temple)			+	
B08	‘Ain al-Bishmu				+
B09	Qaret al-Faragi				+
B10	Temple of Herakles-Khonsu and Amun		?	?	
B11	El-Gazayer				?
B12	Kom Abdel-Karim		?	?	

The existence of a third Ptolemaic community to the east of al-Bawiti is less certain, although the presence of a possible Ptolemaic cemetery at al-Gazayer lends support to this idea. Fakhry (1984: 105–106) noted the presence of several cemeteries in the area, as well as traces of settlement, a stone temple, and small shrine at Kom Abdel-Karim, which might be of Ptolemaic date (Fakhry 1950: 105). Fakhry dated these remains to the Late Ptolemaic and Roman periods; however, until the area is investigated further it is impossible to determine their exact date.

Currently, twelve sites in Bahariya have yielded evidence for Ptolemaic activity, all of them in the northern part of the oasis (TABLE 5.2; cf. APPENDIX 6). Thus far, there is no clear evidence for Ptolemaic activity in the southern part of Bahariya, in the small oasis of El-Hayez. Most of the remains investigated here date from the Roman and Byzantine periods, although there are isolated finds of objects that are clearly earlier in date (Dospěl and Suková 2013: 8, n. 7), so it is possible that future work will reveal earlier phases of activity.

5.5 SIWA OASIS

In any discussion of Siwa Oasis during the Ptolemaic Period one inevitably encounters reference to Alexander’s famous visit to the Oracle of Ammon. Certainly this stands as one of the most important pieces of evidence for official interest in the region just prior to the Ptolemaic Period. Alexander’s visit is described by a number of ancient authors including Aristobulus (FGrHist. 139), Diodorus Siculus (XVII: 49.2–6), Plutarch (*Alexander* 27) and Ptolemy son of Lagos (FGrHist. 138). Kallisthenes accompanied Alexander and wrote an account of the visit, although this is only preserved in fragments (FGrHist. 124 F 14). Arrian (III.3–4), writing in the 2nd century CE, produced a history of Alexander’s life based upon the works of Ptolemy and Aristobolus amongst others (Austin 2006: 5). Although the specific details of Alexander’s visit might be exaggerated and are disputed amongst the individual authors (Austin 2006: 35–36), these accounts demonstrate the importance of the Oracle within the Greek world, as well as the importance that Alexander placed upon such a visit. No doubt, ideological reasons must have greatly influenced Alexander’s journey to Siwa (cf. Hölbl 2001: 9–11);

however, there were likely other motivations behind such a journey, including the desire to establish control over important trade routes (Klotz 2013a: 908; cf. also Kuhlmann 2013).

Other written sources demonstrate the continuing importance of the Oracle of Ammon during the Ptolemaic Period. Silius Italicus (*Punica* III: 647ff) tells us that at the end of the 3rd century, Hannibal sent to the oracle to ask when the war would end (cf. also Fakhry 1973: 88; Parthey 1862: 169–171). Perhaps this is a literary convention used by Silius Italicus to create a link between Hannibal and Alexander; however, he also records that the King of Siwa sent an Ammonian army in support of Hannibal (*Punica* XV: 672ff; Kuhlmann 1998: 163), which lends support to the idea that Hannibal did send someone to communicate with the oracle. It also raises the possibility that a local ruler continued to govern Siwa during the Early Ptolemaic Period. We have inscriptional evidence from Dynasties XXVI and XXX for the existence of a 'king' of Siwa ('Great One of the Two Deserts' in local Egyptian texts), who presented himself as an equal to the contemporary Egyptian king (Gallo 2006; Kuhlmann 2002: 159–160; 2011: 8), although it is unclear to what extent this practice continued, if at all, during Ptolemaic times. Certainly, by the Late Ptolemaic Period, Siwa was viewed by the Ptolemies as an Egyptian territory with a status comparable to that of the other oases, as it is identified as the seventh oasis in the Edfu Oasis List (Fakhry 1939b: 640–641; Kaper 1992: 118; Osing 1985: 185; Sethe 1920: 50; Winlock 1936: 58; cf. CHAPTER 1.4).[1]

The ancient capital of Siwa was no doubt at Aghurmi, centred on the Ammoneion. This complex, which has been excavated by a mission from the German Archaeological Institute under the direction of Klaus Peter Kuhlmann since 1992, incorporated the famous Temple of the Oracle on the Aghurmi acropolis, as well as the adjacent temple of Umm Ubaydah (Kuhlmann 1988; 2010a; 2010b; 2011; 2013: 157–158). The fact that the Aghurmi temple, which was established in the 6th century BCE, remained in use during the Ptolemaic Period (Fakhry 1944: 91; 1973: 158, 164; Kuhlmann 2011: 5–6), points to the existence of a Ptolemaic settlement in the vicinity. This is further supported by the presence of Ptolemaic cemeteries at nearby Gebel el-Mawta and Gebel al-Dakrur. The settlement itself has not been discovered, although it is likely that it lies beneath by the modern town.

A second major community, perhaps comprising several adjacent settlements, appears to have been located on the eastern bank of Lake Zeitun (FIGURE 5.6). Geophysical survey conducted by a mission from the Institute of Archaeology at the University of Berne/Cologne has revealed large settlements around El-Zeitun and Abu Shuruf, with the former occupying an area measuring 2.5 x 0.7 km (Heinzelmann 2009: 2; Heinzelmann and Buess 2011).[2] These are associated with adjacent cemeteries, some of which contain elaborate stone tomb chapels, such as at El-Zeitun and Abul-Awwaf (cf. APPENDIX 6). Heinzelmann (2009: 1) pointed out that these settlements should perhaps be associated with the 'Cities of Ammon' mentioned by Diodorus Siculus in his description of Alexander's journey to Siwa, which, if correct, suggests that they were already in existence prior to the Ptolemaic Period:

> *First he came to the so-called Bitter Lake, and then, proceeding another hundred furlongs, he passed by the Cities of Ammon* (Ἄμμωνος πόλεις). *Then after a journey of one day, he approached the sanctuary.*
>
> Diodorus Siculus XVII: 49.6, trans. Welles (1963).

[1] According to Kuhlmann (2013: 145–146), this is the only known reference to Siwa in Egyptian sources.
[2] During the Roman Period, this part of the oasis was known for its olive oil production (Kuhlmann 2013: 150), although it is currently unclear whether this was also the case during the Ptolemaic Period.

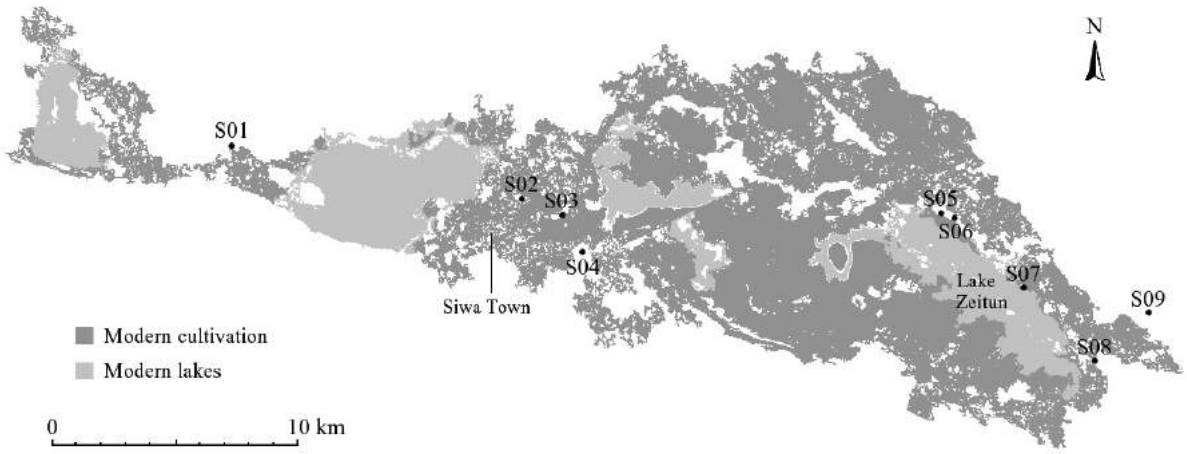


FIGURE 5.6 Map of Siwa Oasis showing locations of Ptolemaic sites. Site numbers refer to those listed in TABLE 5.3.

A third small community might have been located at the western end of the oasis, in the region of Meshendid. There, Fakhry (1944: 68) identified the remains of a settlement and temple, as well as an adjacent cemetery, for which he proposed a Ptolemaic date; however, the settlement and temple are poorly preserved and none of these sites have since been explored further.

All together there is sufficient evidence to demonstrate that a substantial population inhabited Siwa during the Ptolemaic Period, with at least ten sites having yielded evidence of this date (TABLE 5.1; cf. APPENDIX 6). There is in fact a range of archaeological and inscriptional evidence that points to the existence of at least two major communities. One is located in the central part of the oasis near the Aghurmi acropolis, whilst the second is located at the eastern end of the oasis, on the east bank of Lake Zeitun (FIGURE 5.6). The population included people of Greek cultural background, presumably from the region of Cyrenaica, as demonstrated by a range of evidence, including Greek graffiti of Early Ptolemaic date from the quarry at Gebel al-Dakrur (Brashear in Kuhlmann 1988: 85–86), Greek votive stelae of Ptolemaic date, made of local stone (Kuhlmann 2010a: 220; 2011: 9), and local imitations of Greek pottery (Kuhlmann 2011: 9).

TABLE 5.3 List of Ptolemaic sites in Siwa Oasis.

Site #	Name	Settlement	Occupation	Temple	Funerary
S01	Meshendid	?			+
S02	Gebel el-Mawta				+
S03	Aghurmi (Temple of the Oracle)	?	+	+	
S04	Gebel al-Dakrur		+		+
S05	‘Ain Qurayshat				+
S06	Qasr al-Gashsham	+		+	
S07	Abu Shuruf	+			+
S08	El-Zeitun	+			+
S09	Abul-Awwaf				+

5.6 Minor Oases

In addition to the Ptolemaic remains outlined above, evidence for Ptolemaic activity has been identified at several other locations in the Western Desert. These smaller oases are today uninhabited, but were utilised in antiquity as convenient stopping-points on the caravan routes that connected the major oases (FIGURES 5.1 and 5.7). Whilst the primary function of such sites was to act as rest-stations, where fresh water and shelter could be found, in most cases they appear to have been occupied by more permanent communities. This is clearly the case at ʻAin Amur, which is a small spring located on the Darb ʻAin Amur connecting Dakhleh and Kharga. Here a stone temple is partially preserved, as well as the remains of a settlement and associated cemeteries (Rossi and Ikram 2010: 240). Despite the fact that some decoration is preserved, the date of the temple is not certain (cf. Fakhry 1941a; Rossi and Ikram 2010: 240; Winlock 1936: 48–49), although it was probably built during the Ptolemaic or Roman Period based on the surface pottery (Ikram and Rossi 2006). The gods represented on the rear wall of the temple are those local to Dakhleh and Kharga (cf. Kaper 1997: 76–78), which demonstrates that ʻAin Amur was probably viewed as an extension of the Southern Oasis. It is clear that the site functioned as a way-station, which would have offered protection for passing caravans, but the presence of a temple, settlement and cemeteries indicates that the site also housed a more permanent community. This must have comprised administrative officials, who would have monitored traffic and perhaps collected customs duties, but also guards, temple personnel, craftsmen and others who would have contributed to the day-to-day running of the settlement.

The site of Abu Gerara, located to the north of ʻAin Amur on the route linking Dakhleh with the Nile Valley (FIGURE 5.7), must have also functioned as a rest-station, as Harding-King (1913: 457; 1925: 211, 214) identified the remains of several mud-brick structures adjacent to a series of wells, as well as coins, pottery and glass of Ptolemaic date. It is not clear whether these buildings housed a permanent community, or whether the station was simply manned by guards and possibly administrative officials on a rotating basis.

Permanent communities, like that at ʻAin Amur, were probably present in the oases of El-Areg, Bahrein and Nuwemisah, which are located on the route connecting Siwa and Bahariya (FIGURE 5.7). For example, Bahrein Oasis contains an elaborately decorated limestone temple, which appears to have been constructed during Dynasty XXX and extended by Ptolemy II (Gallo 2003; 2006: 15), as well as rock-cut tombs in the surrounding cliffs (De Cosson 1937: 226–227; Fakhry 1973: 137). Similar rock-cut tombs are present in both El-Areg (Fakhry 1939a; 1973: 138–140; Jennings-Bramly 1897: 607) and Nuwemisah (De Cosson 1937: 227; Fakhry 1973: 137), which are thought to date to the Ptolemaic or Roman Period. Furthermore, Rohlfs (1875: 194–195) reported finding the foundations of a stone temple at El-Areg, although this was no longer visible when Fakhry explored the oasis (Fakhry 1973: 140). These oases, possibly to be identified together with Sitra Oasis as the *sḫ.t-ỉm3.t/ sḫ.t-ỉ3m.t* of the Edfu Oasis List (Kuhlmann 1988: 88; cf. CHAPTER 1.4), were apparently considered part of the Ammonian realm of the ʻtwo desertsʼ (Kuhlmann 2013: 152), as evidenced by inscriptions of the local ruler Wenamun in the temples of both Siwa (Fakhry 1973: 168; Kuhlmann 2011: 7) and Bahrein (Gallo 2006: 14; Kuhlmann 2011: 8).

The oasis of Jaghbub, located to the west of Siwa, might have also been part of the Ammonian realm (cf. Kuhlmann 2011: 8). The rock-cut tombs found there are similar in appearance to those in Siwa, and many appear to be Egyptian in terms of the style of the burials and the associated tomb goods (Fadel Ali 2007: 5; Wright 1997: 33–34). Jaghbub formed a link in the chain of oases extending from the Western Desert to the Fazzan in the central Sahara, which together appear to have marked a caravan route linking the Nile Valley with North-west Africa (cf. Liverani 2000). The fact that Jaghbub contains Egyptian style burials of possible Ptolemaic date indicates that Egyptian cultural influence extended this far west and, whilst there is currently no evidence to suggest that the Ptolemies held administrative control over this oasis beyond its possible connection to Siwa, it is likely that they

sought to control trade moving through here given their interest in both the Western Oases and Cyrenaica.

TABLE 5.4 List of Ptolemaic sites in the minor oases.

Site #	Name	Settlement	Occupation	Temple	Funerary
M01	Jaghbub	?			+
M02	El-Areg	?		?	+
M03	Bahrein	?		+	+
M04	Nuwemisah	?			+
M05	Abu Gerara		+		
M06	‘Ain Amur	+		+	+

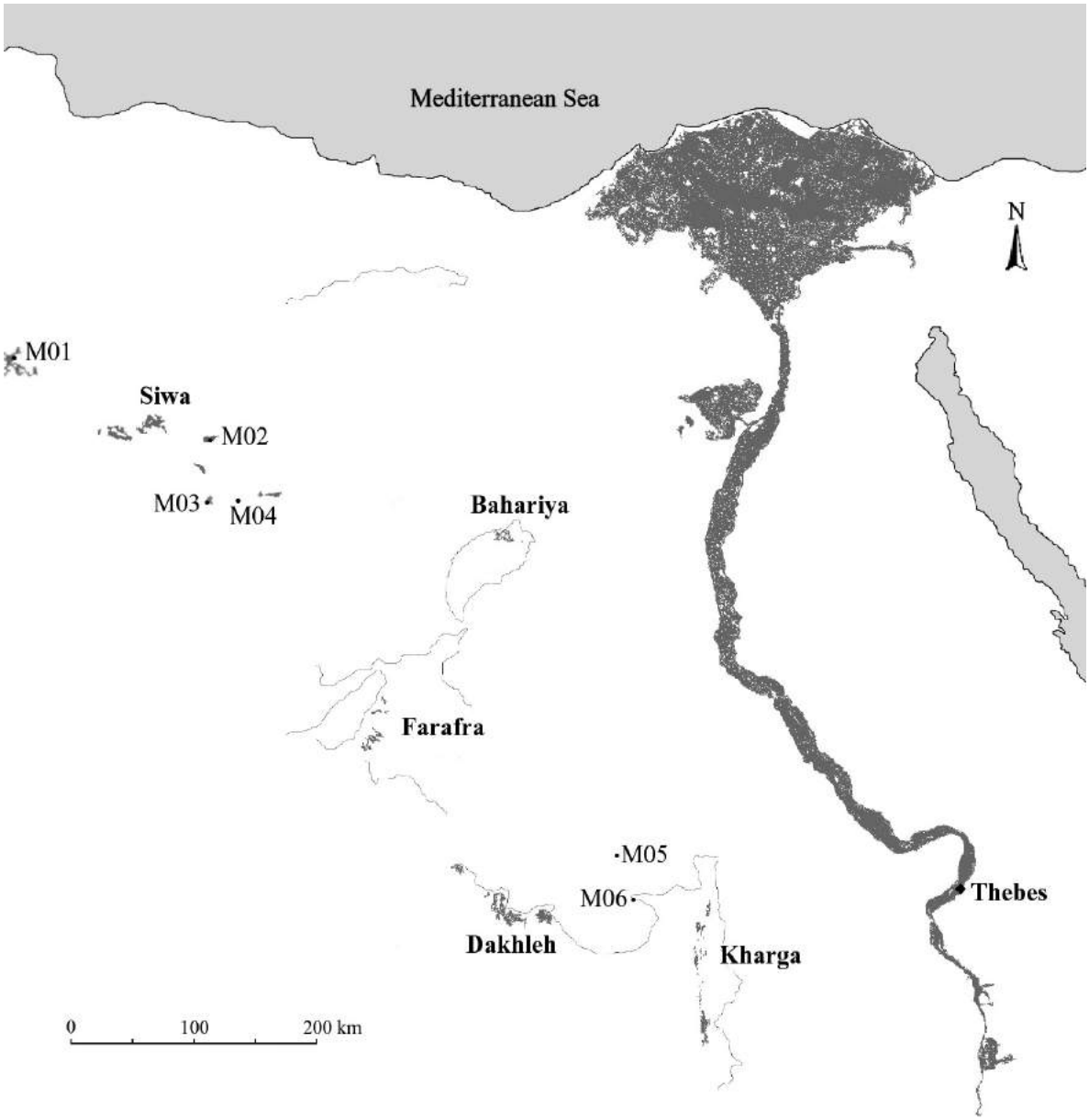


FIGURE 5.7 Map of the Western Desert showing minor oases and isolated sites. Numbers refer to those listed in TABLE 5.4.

5.7 DISCUSSION

Whilst the general impression gained from the published literature is that there are few remains of Ptolemaic date in the Western Oases (cf. Bagnall and Davoli 2011: 139; Bagnall and Rathbone 2004: 249; Kaper 2012a: 717–718), a survey of the available evidence demonstrates that this is not actually the case. A range of Ptolemaic evidence has been identified, including temple inscriptions, graffiti, ostraka, coins, pottery and other kinds of material culture, which together demonstrate a significant human presence in the oases during this period. One hundred and thirteen Ptolemaic sites are identified in this study, seventy-two of which are located in Dakhleh. Whilst a comparatively smaller number of sites is found in each of the other oases, it is possible that future research will reveal evidence for activity on a scale equal to that identified in Dakhleh. Certainly, an increasing amount of Ptolemaic material has come to light in Kharga, particularly in recent years, which lends support to this idea.

As is the case in Dakhleh, a number of the Ptolemaic sites found in the other oases demonstrate a continued occupation from the Persian period. In Kharga, key Persian Period settlements such as Hibis, Ghueita and ‘Ain Manawir/Dush each continued to be occupied during the Ptolemaic Period; however, several other sites appear to represent new Ptolemaic foundations, for example ‘Ain Dabashiya, ‘Ain el-Labakha and Umm el-Dabadib. In this way, the settlement pattern in Kharga appears to reflect that identified for Dakhleh, although it is not yet clear whether this is also true for Bahariya and Siwa.

One of the key difficulties encountered in this survey of Ptolemaic evidence is that the majority of Ptolemaic sites were also occupied during the Roman Period. The Roman remains frequently obscure the evidence from earlier periods, which makes it difficult to identify the extent of Ptolemaic activity, particularly when investigation is limited to a survey of the visible surface remains. This is clearly demonstrated at sites such as Umm el-Dabadib and ‘Ain el-Labakha in northern Kharga, where there is evidence for Ptolemaic and Roman activity, yet it is largely unclear which features date to which period. In the south of Kharga, the survey by l’IFAO has identified a much greater number of Roman than Ptolemaic sites (Wuttmann in Mathieu 2004: 622), yet in some cases the Ptolemaic remains are almost completely obscured by those of the Roman Period (Mathieu 2002: 486).

A further difficulty arises in the misidentification of Ptolemaic material. A good example of this is the group of pottery vessels found in a tomb at ‘Ain Dabashiya by the NKOS (APPENDIX 6). Initially, these vessels were recognised as earlier in date than other (primarily 3rd – 4th century CE) material at the site, yet it was not possible to propose a more specific date at that time (Gascoigne in Ikram and Rossi 2007: 181); however, my reanalysis of the pottery from Dakhleh and the subsequent refinement of its chronology allows us to now confirm a Ptolemaic date for the ‘Ain Dabashiya vessels. It is likely that a great deal more Ptolemaic pottery has gone unrecognised in Kharga and the other oases, much as it has in Dakhleh, largely due to the lack of well-dated comparative material in the published literature.

A systematic survey of Ptolemaic evidence from the oases has clearly been lacking and it is hoped that the above will go some way toward rectifying this. Much of the evidence outlined in APPENDIX 6 has been teased out from survey and excavation reports and is often only mentioned in passing, with very little in the way of detailed discussion. Further work on this material is clearly needed and many sites would benefit from a detailed study of the ceramic material, especially in light of the results of the current study. There is also clearly an advantage to be gained from a regional approach to the evidence, as comparison between the various oases reveals a number of similarities in terms of settlement patterns and material culture. In the final chapter, I will reconsider the evidence from Dakhleh in light of the above survey and make some general conclusions about Ptolemaic Period activity in the Western Desert as a whole.

CHAPTER 6

CONCLUSION

If the main objective of Ptolemaic foundation was to settle people in, and to increase the accessibility and exploitation of a region, the most suitable regions for achieving such a goal effectively were those with low population density.

Mueller (2006: 55).

…by attaching the bountiful farmlands of Kharga, Dakhla, and Bahariya to Thebes, the Ptolemies created a reliable source of food and other resources for the temples of Karnak, and perhaps the cities of Upper Egypt in general…

Darnell, Klotz and Manassa (2013: 31).

6.1 RESULTS OF THE STUDY

Through a detailed analysis of pottery from Mut al-Kharab and numerous other sites in the oasis I have identified the key characteristics of Ptolemaic Period pottery production in Dakhleh. Whilst previous studies were hindered by the lack of well-dated stratified deposits of Ptolemaic pottery from the oasis (e.g. Eccleston 2006; Hope 1999; Patten 2000), the present study utilises new material that has come to light through excavations at Mut al-Kharab. This work has greatly enhanced our knowledge of Ptolemaic pottery in the oasis (cf. Gill 2012a; 2012b; *Forthcoming a*; *c*), which has in turn enabled the author to re-examine pottery collected during the initial survey of Dakhleh by the DOP and to redate a significant proportion of this material as Ptolemaic.

One of the key results of this study is that a greater amount of Ptolemaic evidence has now been identified in Dakhleh. Whereas only seventeen Ptolemaic sites were listed in the catalogue of sites surveyed by the DOP (Churcher and Mills 1999: 260), more than seventy sites bearing evidence for Ptolemaic activity have now been identified by the author (FIGURE 6.1). This contradicts the common idea that there is very little evidence for Ptolemaic activity in Dakhleh (Bagnall and Rathbone 2004: 262; Mills 1980: 256; van Zoest and Kaper 2006: 11), and also challenges the conclusion that the oasis experienced a sudden and dramatic increase in population during the Roman Period (cf. Bagnall and Rathbone 2004: 262; Davoli 2010: 357–358; Kaper 1998: 148; Mills 1984: 208–209; 1985: 128; 1999a: 177; van Zoest and Kaper 2006: 12). The results of this study demonstrate that whilst the population may have peaked during the Roman Period, an increase in population was already well underway during the Ptolemaic Period.

Another key result is the considerable amount of Ptolemaic evidence that has been documented from other parts of the Western Desert, particularly the oases of Kharga, Bahariya and Siwa. This contradicts the notion that, like Dakhleh, the oases have yielded very little evidence for Ptolemaic activity (Bagnall and Davoli 2011: 139; Bagnall and Rathbone 2004: 249; Kaper 2012a: 717–718), and likewise challenges the view that these oases experienced a dramatic increase in population during the Roman Period (Kaper 2012a: 718). The idea that 'the building of new temples took place largely in the second half of the first century CE' (Kaper 2012a: 730), should also be reconsidered in light of the current study.

This study clearly demonstrates that the Western Oases experienced a substantial rise in population during the Ptolemaic Period, which coincided with the development of new settlements and increased agricultural production. Why did such changes take place? I believe that they were the result of a deliberate Ptolemaic strategy aimed at exploiting the agricultural potential of the oases, while at the same time providing both control over long-distance trade routes and military security, particularly against the looming threat of Carthage to the west. This was not an entirely new strategy on behalf of the Ptolemies, as the Persians before them had already been active in the oases, and probably for many of the same reasons; however, under Ptolemaic rule, exploitation of the oases intensified, with new settlements and new areas of cultivation becoming much more widespread. It is difficult to determine exactly when during the Ptolemaic Period that these developments took place; however, given that the exploitation of the Fayum, the development of Cyrenaica, and the expeditions to the Red Sea and Lower Nubia, were all the result of policies implemented during the Early Ptolemaic Period, it seems likely that much of the development witnessed in the oases began around the same time.

6.2 Beyond the Fayum: Ptolemaic Settlement in the Western Oases

In the Early Ptolemaic Period, the Ptolemies' need for increased revenue led to more extensive and more intensive agricultural exploitation (Thompson 2008: 35). Coupled with the Ptolemaic strategy of giving land to foreign soldiers (*kleruchs*), this in turn created a higher demand for arable land (Manning 2010: 161–163; Mueller 2006: 183). A key strategy for meeting this demand was the development of the Fayum, which under the Ptolemies saw a significant increase in population, evidenced by numerous new settlements and extensive land reclamation and exploitation (Clarysse and Thompson 2006: 90; Davoli 1998; Hölbl 2001: 62–63; Manning 2010: 5; Thompson 2003: 108; cf. Monson 2012: 65–66). The Fayum was apparently targeted because it was the only region with the necessary conditions to enable such extensive development, due to its low population density, abundant arable land, and proximity to the Nile (Hölbl 2001: 63; Manning 2010: 139). The region around Oxyrhynchus also appears to have been developed, albeit not on the same scale as the Fayum (Thompson 2008: 30), whilst certain areas of the Nile Delta, such as the Wadi Tumilat, and parts of Upper Egypt also appear to have been subject to increased settlement and exploitation (Davoli 2010: 353; Rowlandson 2003: 256–258). This shows that the Ptolemies did not target the Fayum exclusively for development, despite the fact that this is the impression generally given in the published literature (Gill *Forthcoming e*). Therefore, we should also consider the Western Oases within the context of the overall Ptolemaic development scheme, a point to which I will return shortly.

There were several advantages to the creation of new settlements (Mueller 2006: 179–180). Some settlements enabled increased agricultural exploitation, such as those in the Fayum, whilst others provided better access to trade and resources, such as those established in the Eastern Desert and on the Red Sea coast. It is therefore somewhat surprising that in her study *Settlements of the Ptolemies*, Katja Mueller (2006) did not identify the Western Desert and its oases as a possible target for Ptolemaic settlement and exploitation. Nowhere is the Western Desert discussed, and yet Egypt, Lower Nubia and the Red Sea coast are together described as three regions that together 'formed one unit which shared historical developments' (Mueller 2006: 47). If regions with low population density, such as Lower Nubia and the Red Sea coast, were best suited to achieving the aim of increased exploitation and accessibility of a region (Mueller 2006: 55), then surely the Western Oases were an obvious target for such a policy. An additional advantage to exploitation of the oases was that, unlike agricultural production in the Nile Valley and the Fayum, which relied on trapped water from the annual Nile flood for irrigation, the oases had access to a continuous year-round water supply by means of natural artesian springs and artificial wells (likely also an attractive prospect for the Persian rulers before them; Kaper 2012b: 173).

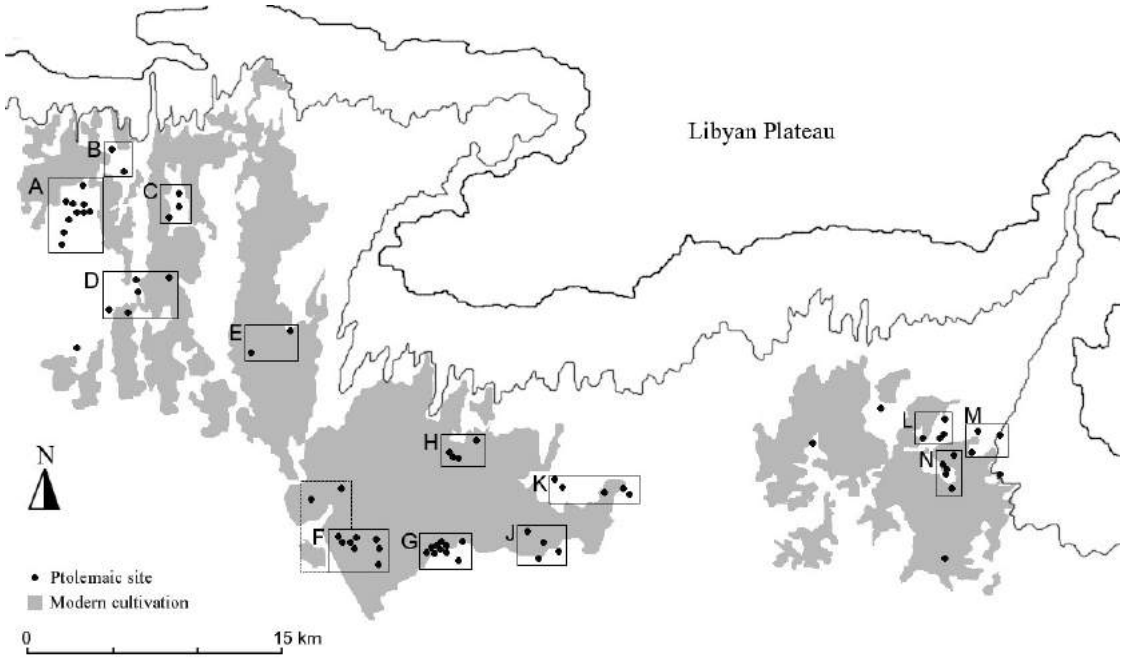


FIGURE 6.1 Ptolemaic Site Groups in Dakhleh Oasis.

The question remains, can we demonstrate that the Ptolemies did in fact target the oases in such a way? As we shall see, the archaeological evidence does support such a contention (cf. also Gill *Forthcoming e*).

If we focus on Dakhleh Oasis for example, we see that the number of documented sites in the oasis increases substantially from the Late Period to the Ptolemaic Period, from 35 to 72, which represents an increase of 106% in the total number of sites (TABLE 4.5). Furthermore, 75% of Ptolemaic sites in the oasis do not appear to have been occupied prior to the Ptolemaic Period (TABLE 4.4). When we focus exclusively on the seventeen settlement sites identified for the Ptolemaic Period in Dakhleh, we see that only three represent the continuation of an existing settlement, namely at Amheida, 'Ain al-Azizi and Mut al-Kharab, whilst the other fourteen settlements appear to have been new foundations. This suggests that the strategy implemented by the Ptolemies involved the maintenance of settlements that were already present in Dakhleh, as well as the foundation of a number of new settlements, in order to increase both the population and the agricultural productivity of the oasis. This process becomes even more apparent when we look at the distribution of new Ptolemaic settlements in relation to existing sites (FIGURES 6.1 and 6.2).

Prior to the Ptolemaic Period, important settlements appear to have been located at Mut al-Kharab (Hope 2005b; Hope *et al.* 2009: 64–66; Kaper 2012b: 167–169), and Amheida (Davoli 2012: 263–267; Kaper 2012b: 169–172), whilst there is also a small amount of evidence for Late Period activity at 'Ain al-Azizi (Hope 2002: 192–193). Ptolemaic activity continued at each of these sites, most likely with Mut al-Kharab as the administrative capital of the oasis if we go by the size of the site and the nature of the Ptolemaic evidence discovered there (Gill 2012a; Vittmann 2012; also CHAPTER 2). Yet the Ptolemies also appear to have developed new areas of the oasis. Going back to the site groups discussed in CHAPTER 4, it is clear that many of these have yielded little or no evidence for pre-Ptolemaic activity, which suggests that they represent newly-developed areas under the Ptolemies (TABLE 4.4; FIGURE 6.2). In particular, the region south of Dayr al-Haggar (Group A) appears to have been subject to increased exploitation, as was the region south of Amheida (Groups D and E). Other areas that appear to have been developed under the Ptolemies include the region west of 'Ain al-Azizi

(Group G), Group H to the north of this, the region around Ismant al-Kharab (Group K), and the eastern end of the oasis around ‘Ain Birbiyeh (Groups L, M and N). Overall, this pattern of development mirrors that which has been identified for Kharga (CHAPTER 5.2) and the Fayum; the settlements of Bacchias and Tebtynis appear to have been already occupied during the Late Period (Davoli 2010: 353; Marchand 1996), and were subject to continued development under the Ptolemies, whilst many other Fayum settlements appear to be new Ptolemaic foundations.

Altogether the archaeological evidence points to a deliberate strategy of settlement foundation and land development in the oasis during the Ptolemaic Period (contra. Cruz-Uribe 2010: 502). It appears that many existing settlements continued to be occupied; however, at the same time the Ptolemies also established new settlements in areas that were previously unoccupied, or at least underdeveloped, in order to maximise the agricultural productivity of the oasis. The introduction of a new water-lifting device, the *saqiya*, which was in use from the 3rd century BCE (Hairy 2009: 562–564), would have allowed the Ptolemies to make greater use of the artesian water supply, and to exploit new areas of arable land, which were previously inaccessible. The *saqiya* enabled water to be drawn more quickly than the traditional *shaduf*, and also enabled farmers to exploit much deeper wells (Hairy 2009: 564). The Ptolemies may have also taken advantage of existing *qanat* systems in Kharga, Farafra and Bahariya, which had been introduced by the Persians and later reused during the Roman Period (Buongarzone *et al.* 2010; De Angeli 2013; De Angeli and Finocchi 2010; Schacht 2003; Wilson 2006; Wuttmann 2001). The possibility that the Ptolemies reused such *qanat* systems has largely remained unexplored in the published literature, despite the fact that they are found associated with sites that have yielded evidence for Persian, Ptolemaic and Roman activity (e.g. at ‘Ain Manawir/Dush). Significantly, *qanat* systems are located at both Umm al-Dabadib and ‘Ain Labakha in northern Kharga (Schacht 2003), which are both sites that appear to have been occupied only during the Ptolemaic and Roman periods. This raises the possibility that the *qanats* at those sites were in fact constructed in Ptolemaic times, although a Roman date is assumed by some scholars (e.g. Rossi in Rossi and Ikram 2010: 238).

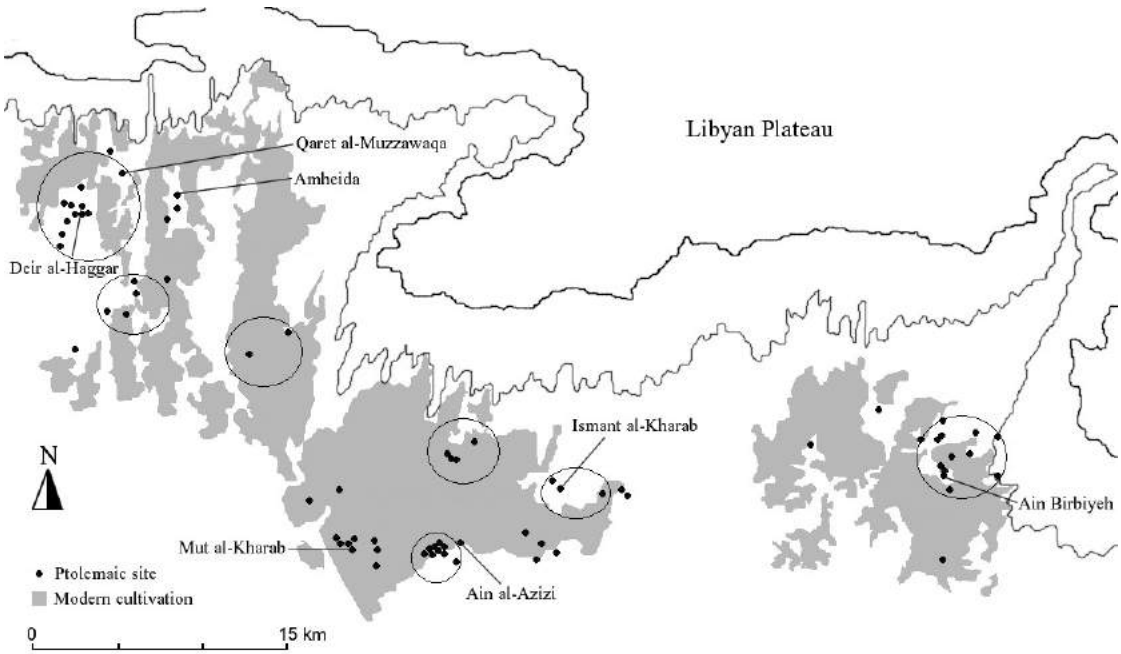


FIGURE 6.2 Areas of new Ptolemaic development (circled).

In Dakhleh, possible *qanat* systems have been recently discovered, but they do not seem to have been widespread.[1] Instead, we find throughout the oasis the remains of ancient irrigation channels, which are often attributed to the Roman Period (Mills 1979: 175; Zaghloul *et al.* 2013: 160; cf. Kleindienst *et al.* 1999: 40–41), but which could just as easily be of Ptolemaic date. These channels are particularly visible in the area surrounding ‘Ain al-Azizi and also around Dayr al-Haggar (Zaghloul *et al.* 2013), and both areas appear to have been subject to increased settlement in the Ptolemaic Period. Such infrastructure is not easily dated, but it is problematic to simply assume a Roman date.

The agricultural development apparent for Ptolemaic Dakhleh is likely to have also occurred in the other oases, although the evidence is much more tenuous. The strongest evidence comes from Kharga Oasis, where it seems that a similar process of settlement development and land exploitation probably took place under the Ptolemies (CHAPTER 5.2). Existing settlements at Hibis, Qasr al-Ghueita and ‘Ain Manawir/Dush each continued to be occupied during the Ptolemaic Period, much in the same way that both Mut al-Kharab and Amheida in Dakhleh witnessed continued occupation. The Ptolemies likely made use of these established settlements as key centres from which new settlements in the surrounding region could be administered. New Ptolemaic foundations would have benefited from a close relationship with the larger regional centres, where major temples had been previously established and administrative frameworks were already in place.

New Ptolemaic settlements appear to have been established in the north of Kharga, particularly at Umm el-Dabadib, ‘Ain el-Labakha and ‘Ain el-Dabashiya, and although El-Deir has yielded some limited evidence for Late Period activity, it was probably expanded substantially under the Ptolemies. The evidence is by no means clear, but this interpretation fits well with the pattern visible in Dakhleh and suggests that a similar Ptolemaic development strategy was implemented in Kharga. Most of the sites in Kharga that I have interpreted as new Ptolemaic settlements have not been examined in detail, having only been surveyed. One exception is the site of El-Deir, which has been investigated over a longer period and is beginning to yield evidence for extensive Ptolemaic land exploitation (Tallet *et al.* 2012; G. Tallet pers. comm. 2013). The region around ‘Ain Manawir/Dush in the south of Kharga had already experienced increased development under the Persians (Wuttmann and Marchand 2005: 197–199), and it is unclear to what extent this continued in the Ptolemaic Period. It seems that the region continued to be exploited by the Ptolemies, as part of their broader strategy of building upon the development set in place by the Persians.

Evidence for Ptolemaic development of the other oases is much less clear, although the fact that there is Ptolemaic evidence from Bahariya and Siwa points to continued occupation at least. In Bahariya, the presence of a very large Ptolemaic/Roman cemetery, the so-called Valley of the Golden Mummies, might be evidence for increased settlement during this time (CHAPTER 5.4). Likewise, at the eastern end of Siwa the presence of large Ptolemaic/Roman settlements on the east bank of Lake Zeitun may point to the development of this region under the Ptolemies (CHAPTER 5.5).

That the oases were directly integrated into the Egyptian economy is demonstrated by the fact that they were part of the closed currency zone, which comprised the core possessions of the Ptolemaic Empire, namely Egypt, Cyprus, Cyrenaica, Syria and Phoenicia (Bagnall 1976: 240). The monetary policy established late in the reign of Ptolemy I prevented the circulation of anything other than official royal currency in the core Ptolemaic territories, and enabled the Ptolemies to maintain a monopoly over currency exchange, as well as to extract some taxes in the form of cash (Hölbl 2001: 28–29; Manning 2010: 33, 130ff). The fact that Ptolemaic coins have been found at numerous sites throughout the oases, whilst foreign coin types are not encountered, supports the idea that the oases were part of this closed currency zone (TABLE 6.1). Interestingly, some of the Ptolemaic coins found at Hibis appear to be imitations of official issues (Newell 1941: Nos A.11–14, B.3, C.1–2, D.1), which

[1] These are located at the eastern end of Dakhleh. They were discussed by Sabri Youssef at the *7th International Conference of the Dakhleh Oasis Project*, 20–24 June 2012, Leiden.

implies that there was some attempt by local officials to circumvent the royal monopoly on currency exchange.

TABLE 6.1 List of oasis sites that have yielded Ptolemaic coins.

Oasis	Site	Name/Number	Description of coin(s)	Reference
Dakhleh	04	32/390-E1-1	Bronze coins (Details unknown, Ptolemaic?)	Hope *F.N.* 1978: 67–77
Dakhleh	08	33/390-F8-1A	Bronze coins (Details unknown, Ptolemaic?)	Hope *F.N.* 1978: 91–95
Dakhleh	--	Dayr Abu Matta	Ptolemaic coin (intrusive; from Site 22?)	Bowen 2009: 10
Dakhleh	29	Mut al-Kharab	Ptolemaic bronze coin (Reg. 18/150) Ptolemaic copper-alloy coin: Kleopatra? (Reg. 28/047) Ptolemaic copper-alloy coin (Reg. 31/006)	cf. CHAPTER 2
Dakhleh	43	‘Ain el-Azizi	Ptolemaic coins (surface)	Hope 1983: 149
Siwa	S03	Gebel el-Mawta	Ptolemaic bronze: Ptolemy I	White 1899: 236–238
Siwa	S06	‘Ain Qurayshat	Coins ranging in date from Ptolemy I through to Antoninus Pius	Heinzelmann 2009: 1; Kuhlmann 1998: 167
Bahariya	B02	Qasr El-Megysba	Ptolemaic coins	Fakhry 1950: 47
Bahariya	B03	Valley of the Golden Mummies	Ptolemaic coins: one of Kleopatra VII (Tomb 62: Chamber 1, Shaft A)	Hawass 2000: 42–43, 78
Bahariya	B06	Qaret El-Toub	Five Ptolemaic bronze coins: one of Ptolemy V or VI	Van Heesch 2003: 532–533; 2012: 120–126
Kharga	K02	‘Ain el-Labakha	Two Ptolemaic coins found in the sanctuary of Piyris	Ibrahim *et al.* 2008: 25
Kharga	K03	El-Deir	Ptolemaic coins: reign of Ptolemy VI (from within the temple)	Dunand *et al.* 2010: 47
Kharga	K06	Hibis	Ten Ptolemaic coins: Ptolemy II, III, IV, V and VI; Four imitations: Barbarized types and inscriptions (Houses south of temple: lower levels). Two Ptolemaic coins: Ptolemy VI; One crude cast of similar type (House B, south of temple). Two possible casts of late Ptolemaic coins (House C, south of temple). Imitation bronze coin: Ptolemy VI (Houses south of temple; upper levels). Ptolemaic coin: Ptolemy IV (Temenos north of temple). Two Ptolemaic coins: Ptolemy II and VI (Avenue and northeast of temple).	Newell 1941: 51–55
Kharga	K10	Dush	Three bronze coins: Ptolemy II (Sector O21/22/23)	Gascou *et al.* 1980: 322, 336; Reddé *et al.* 2004: 172
Kharga	K11	‘Ain Ziyada	Ptolemaic coin	Giddy 1987: Pt. I, n.74
---	M05	Abu Gerara	Ptolemaic bronze coins	Harding-King 1913: 457; 1925: 211, 214

6.3 DIRECTING DIVINE OFFERINGS TO THE VALLEY

An inscription of Ptolemy III Euergetes from Qasr al-Ghueita informs us that he built the temple 'in order to direct divine offerings to Thebes, for his father' (Darnell *et al.* 2013: 31). These divine offerings probably comprised products from Kharga Oasis, and evidently also from Bahariya (Darnell *et al.* 2013: 31), and included wine, food-products and myrrh (Darnell *et al.* 2013: 29). By supplying the temples of Thebes with oasis products, Ptolemy III was able to support his building programme there (Darnell *et al.* 2013: 30–31), although the oases may have also been exploited in order to provide additional food during a particularly low-inundation reported in the Canopus decree of 238 BCE (Darnell *et al.* 2013: 30–31; Klotz 2013a: 909; Pfeiffer 2004: 93–99). The idea that the Ptolemies exploited the agricultural potential of the oases in order to supplement their stores in the Nile Valley has only recently appeared in the published literature (Darnell *et al.* 2013: 30–31; Klotz 2013a: 909; cf. also Gill *Forthcoming e*), and is largely based on the Ghueita inscription of Ptolemy III. Interestingly though, this idea is supported by the fact that the Ptolemies are known to have imported, exported and diverted the flow of grain within Egypt as needed in order to supplement stores and prevent famine (Buraselis 2013: 99–102). The importance of the oases within this is supported by the archaeological evidence as their development can be seen, much like the development of the Fayum, as part of a broader strategy designed to increase agricultural production.

Darnell, Klotz and Manassa (2013: 31) see the expansion of the Hibis and Ghueita temples as a by-product of the Ptolemaic exploitation of Kharga, yet this implies that these Ptolemaic additions were simply an incidental secondary result of the broader Ptolemaic development strategy. Surely though we should interpret such embellishment as a deliberate attempt on behalf of the Ptolemies to establish control over important existing temple estates and their associated settlements, in order to provide a strong administrative base from which to launch new settlement and land development programmes.

Ptolemaic temple construction in the oases has been seen as relatively limited in comparison to Roman Period construction (Kaper 1998; 2012a: 730). This is partly due to the relatively small number of preserved Ptolemaic inscriptions, yet when we examine the evidence for temples constructed and embellished by the Ptolemies, it seems that a deliberate programme could have existed. In Kharga there are inscriptions of Ptolemy II, Ptolemy III and Ptolemy V at Hibis (Winlock 1941: 33, 39), and inscriptions of Ptolemy III, Ptolemy IV and Ptolemy IX at Ghueita (Darnell 2007b: 29–31; Darnell *et al.* 2013: 20), whilst a cartouche of Ptolemy II was also found at the small temple in Bahrein Oasis (Gallo 2006: 15). The name of Alexander the Great appears in the temple at Qasr al-Megysba in Bahariya (Fakhry 1941b: 825–827; 1950: 45), which might have been built by Ptolemy I, whilst the same Ptolemy apparently dedicated an altar to Ammon at Aghurmi in Siwa (Pausanias IX: 16/1). We should also take into account sites that are likely to have been embellished by the Ptolemies, but which are now ruined. For example, the temple at Mut al-Kharab is very likely to have received some Ptolemaic decoration, much like at Hibis, and we might speculate that this was in the form of a new gate or something similar (CHAPTER 2). Amheida and perhaps also 'Ain al-Azizi, might have also been embellished by the Ptolemies, although again they are almost completely ruined, whilst the temple at 'Ain Birbiyeh was probably constructed late in the Ptolemaic Period (Kaper 1998: 149; CHAPTER 4.4).

A number of mud-brick temples were also constructed by the Ptolemies, which has skewed the picture somewhat, as they are often undecorated. The mud-brick temple at El-Deir was built and used during the Ptolemaic Period (Dunand *et al.* 2010: 47), whilst there are many other temples in Kharga and Dakhleh that appear to be of Ptolemaic origin (e.g. at 'Ain el-Labakha and Dush; cf. CHAPTERS 4.4 and 5.2). When we take all of this into account we begin to see evidence for a deliberate policy. The Ptolemies clearly implemented a programme of temple construction, development and embellishment throughout the Western Oases, in the same way that they did for the Nile Valley, particularly in Upper Egypt (Arnold 1999: 144; Hölbl 2001: 85–87, 279–280; Manning 2010: 101), but also in Lower Nubia

(Hölbl 2001: 161–162; Wilkinson 2000: 216–219). This programme was aimed at emphasising the role of the Ptolemies as legitimate rulers throughout the land, and at the same time winning over the local priesthoods through royal patronage. For the oases, control of the temples would have helped secure the region and would have enabled the Ptolemies to control the collection and distribution of oasis goods, in order to ensure that revenue continued to flow in and that a sufficient proportion of oasis production reached the Nile Valley. The inscriptional evidence from Ghueita supports this idea, as does other evidence from the oases.

So what were the 'divine offerings' that were sent to the Nile Valley? The inscription of Ptolemy III at Ghueita tells us that wine, food products and myrrh were offered to the gods (Darnell *et al.* 2013: 30). The ostraka from el-Muzawwaqa and Mut al-Kharab in Dakhleh provide further evidence for the types of goods that were collected as payment by the temples. The two most common products mentioned are wheat and oil, whilst wine, olive oil, olive trees, barley, sesame, grapes, lotus oil, incense and myrrh are also attested (Nur el-Din 1982: 115–116; Vittmann 2012: 30). Most of these products are discussed in the context of temple payments and receipts for payments, so it is likely that these were the kinds of goods that were redistributed to the Nile Valley temples. It is possible that almost all of these products were actually produced in the oasis, apart from myrrh and incense, which probably arrived in the oases as the result of long-distance trade. Myrrh and incense are usually identified as products of exotic regions such as Punt (Darnell *et al.* 2013: 30), and finds of myrrh from Late Roman burials at Kellis in Dakhleh have been identified as imports from the Red Sea region.[2] Wheat and oil are mentioned frequently in the Dakhleh ostraka, suggesting that they were staple oasis products, although we should also add wine to this group.[3] Wine is listed in the Ghueita inscription (Darnell *et al.* 2013: 30), and furthermore, the oases are frequently identified as wine-producing lands in Ptolemaic temple offering scenes in the Nile Valley (CHAPTER 1.4; TABLE 1.2). Vine-motifs are also encountered in the painted decoration on Ptolemaic pottery from Dakhleh (CHAPTER 3.5; Gill *Forthcoming c*), emphasising the role of wine as a key oasis product. Not only does this demonstrate the importance of agricultural production in the oases, but it points to the existence of an entire industry and the infrastructure that would have been associated with it. As Giddy (1987: 75) pointed out:

> The most prominent export, wine, would necessitate long-term agricultural production, as well as all accompanying installations for the winemaking industry. This could well have also included a complementary pottery industry … Such an industry again would have called for a considerable resident population, but a population not entirely occupied with agriculture.

This statement was made in relation to New Kingdom wine production in the oases, yet the point is equally applicable to the Ptolemaic Period. Indeed, a similar one can be made with respect to wheat and oil production, as both also require 'accompanying installations' and a 'considerable resident population'.

---

[2] Identified by Lana Williams (G. Bowen pers. comm. 2013).

[3] Wheat, oil and wine were also common oasis products during the 4th century CE, as evidenced by the *Kellis Agricultural Account Book* (Bagnall 1997: 35ff). I am aware of the danger of using such late evidence to support my identification of oasis products of Ptolemaic date; however, it does serve to illustrate that such products were able to be produced in large quantities within the oasis environment. For Siwa Oasis, dates and salt appear to have been key products (Kuhlmann 2013: 140).

6.4 Gateway Communities, the 'Oasis By-Path' and Long-Distance Trade

Joseph Manning has put forward the idea that the foundation of Ptolemais Hermiou in Upper Egypt, along with the development of regional centres such as Edfu and Philae, was the result of a Ptolemaic strategy aimed at controlling the inflow of trade to the Nile Valley (Manning 2003: 33–34; 2010: 106–107; 2011a: 303–304; 2011b: 6). These settlements, or 'gateway communities' (Manning 2011a: 303), were located at the junction of major trade routes coming from the Western and Eastern Deserts, and were thus in a position to control trade flows and collect revenue (FIGURE 6.3). This was not a new strategy, but it does seem to have been more intensive under the Ptolemies, as is demonstrated in the Ptolemaic development of Cyrenaica, and in the founding of settlements on the Red Sea coast (Manning 2010: 106–107).

It seems that the Ptolemies also implemented such a strategy in the Western Oases, where they controlled the flow of goods via a network of 'gateway communities'. For example, Ghueita, which stood at a major crossroads in Kharga, was part of a network that directed products from Bahariya to the Thebaid (Darnell *et al.* 2013: 31; and see above). Temples were clearly central to such a strategy, as they provided a means of collecting and distributing oasis products. In terms of long-distance trade, these temples could act as hubs within a broader network, ensuring that trade was monitored and that revenue was collected at each point. This is emphasised by the position of temples at the junctions of major trade routes, such as at Hibis and Ghueita in Kharga, and Mut al-Kharab in Dakhleh, as well as by the presence of temples at key stopping points along the routes, such as at 'Ain Amur and at Bahrein Oasis (CHAPTER 5.6).

The advantage of controlling trade through the Western Oases, was that trade flows were not limited to a single point of entry into the Nile Valley. If trouble arose in a particular area, then it was possible for the Ptolemies to redirect trade through alternative routes. Considering the numerous revolts in Cyrenaica, such as that of Magas (Bagnall 1976: 25–27; Hölbl 2001: 39), as well as the constant trouble in the Thebaid (Hölbl 2001: 154–156; Manning 2010: 17), it seems likely that the Ptolemaic kings would seek to control the oasis route in order to maintain access to trade coming from the west and south respectively (cf. Manning 2010: 106). The 'Oasis By-path' (Kuhlmann 2002), offered an important alternative means of communication and access, which could be used if the Nile Valley itself became inaccessible (FIGURE 6.3). This same principle was likely behind the Ptolemaic strategy to develop alternative means of access to the Red Sea coast, via the eastern Delta (Manning 2011a: 312), and it seems that trade and mining in the Eastern Desert was maintained even during times of unrest in the Thebaid (Gates-Foster 2012a: 202).

It has been suggested that control of the trans-Saharan trade routes was one of the key reasons for Ptolemaic interest in Cyrenaica, and a key reason for founding new settlements there (Hölbl 2001: 18; Huß 2001: 103–104; Manning 2011a: 5). The fact that the Ptolemies sought to control both Cyrenaica and the Western Oases does suggest that they were interested in accessing trade coming from the northwest Africa, particularly when we take in to account their activities along the Red Sea coast, where a series of ports were established (Sidebotham 2011; Sidebotham and Wendrich 1998; 2001/2). These ports, such as the one at Berenike, were created to facilitate the transport of war elephants from eastern Africa via the Red Sea into Egypt (Casson 1993; Sidebotham and Zitterkopf 1995: 40), as well as to enable trade with Southern Arabia and also with India (Hölbl 2001: 57, 204; Sidebotham 2011: 32, 37). We can also view Ptolemaic activity in Nubia as part of an overall strategy aimed at gaining access to sub-Saharan trade (Burstein 2008). Despite this clear Ptolemaic interest in accessing trade via the Red Sea and Nubia, very little attention has been given to the possible Ptolemaic exploitation of trans-Saharan trade routes located to the west of Egypt.[4]

[4] For a discussion of trans-Saharan trade in Pharaonic, Ptolemaic and Roman times, including the role of the oases in such trade, see Kuhlmann (2013).

Apart from the simple fact that the Ptolemies were clearly interested in establishing control over the Western Oases, there is some additional evidence to support the idea that they were also interested in gaining access to trans-Saharan trade via the oasis route. We know that this caravan route already existed during the 5th century BCE, as it is alluded to by Herodotus (IV: 181–185; Liverani 2000; cf. also Law 1967: 186–187; Wright 1997: 32). A comparison of the archaeological evidence from both the Fazzan and Egypt reveals a number of connections, which might indicate that trade continued along this route during the Ptolemaic Period (FIGURE 6.4). In particular, similarities in material culture and agricultural practices point to a certain degree of Egyptian influence on Garamantian society, which could be interpreted as a result of contact and perhaps trade between the two regions.

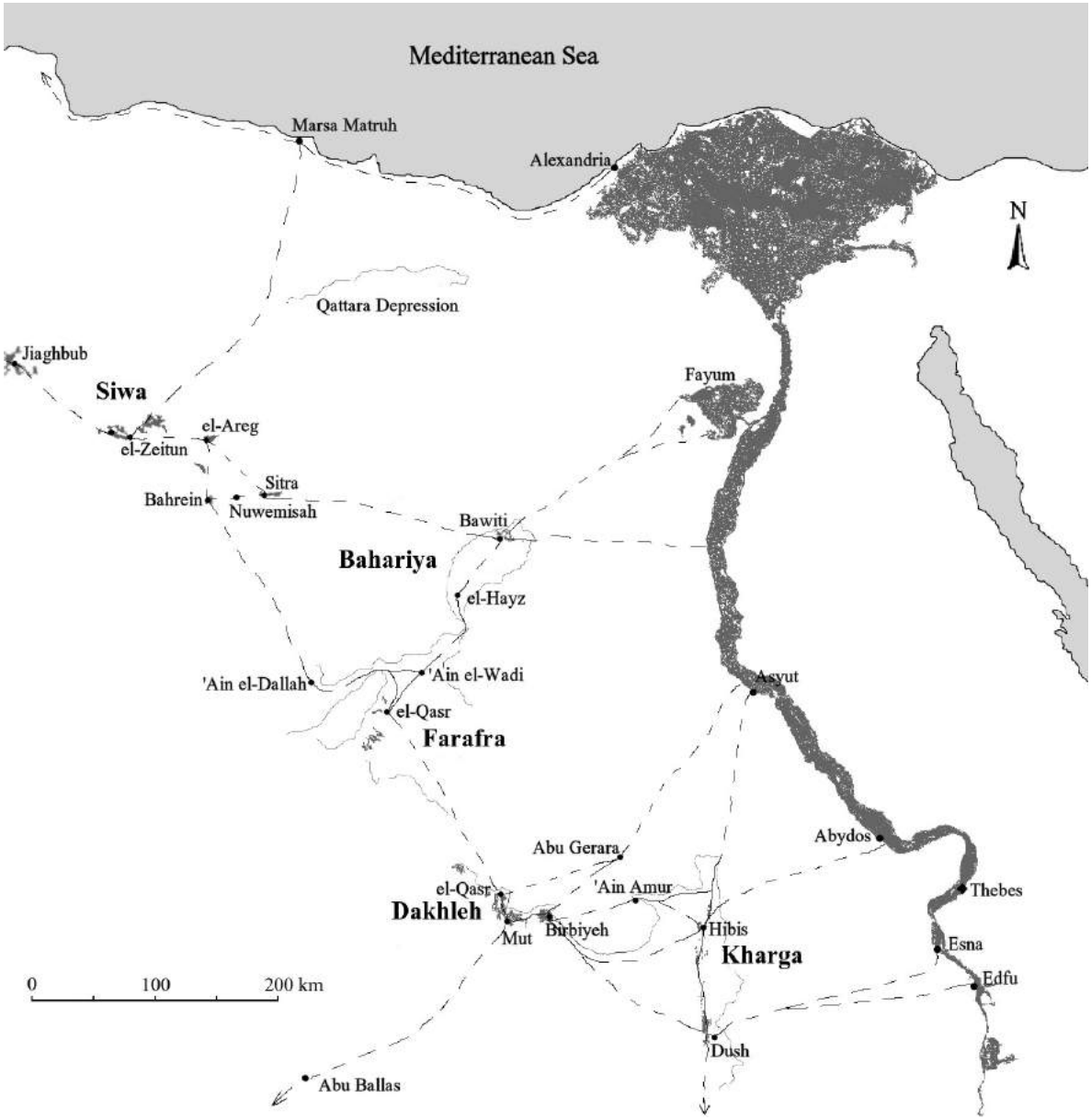


FIGURE 6.3 Map of the Egyptian Nile Valley and the Western Desert showing the location of the five major oases, along with key settlements and caravan routes.

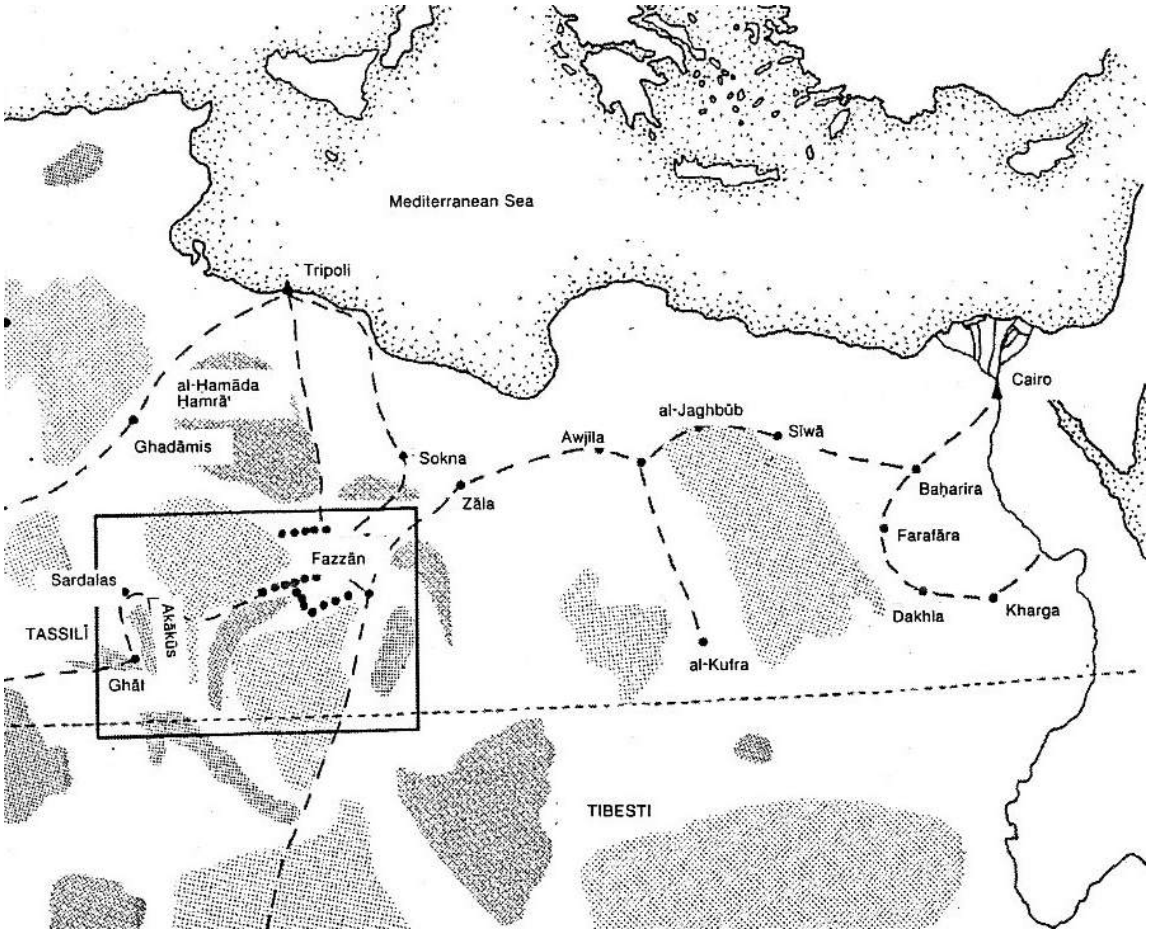


FIGURE 6.4 Map of the eastern Sahara showing the caravan route that linked Egypt with the Fazzan via the oases of the Western Desert (after Mattingly et al. 2003: 2).

Egyptian cultural influence is most easily recognised within the context of Garamantian funerary practices. For example, large numbers of tombs with pyramidal mud-brick superstructures have been found across several cemeteries throughout the Fazzan (El-Rashdy 1986: 83–86; Mattingly *et al*. 2003: 192–194). Significantly, pyramidal mud-brick tombs have also been discovered in Dakhleh Oasis, at the sites of Amheida and Bir Shaghala (APPENDIX 4). The pyramids at Amheida have been dated as Roman, despite the fact that they have not been excavated and presumably because of their location adjacent to the Roman settlement (Warner 2012: 366; Kaper in Bagnall *et al.* 2015: 112–116); however, this tomb type is not encountered at the other major Roman site in the oasis, Kellis (Ismant al-Kharab). Considering that earlier phases of occupation are evident at Amheida, and that Kellis does not seem to have been occupied before the Late Ptolemaic/Early Roman period, it is possible that the pyramids at Amheida are of Ptolemaic date or earlier. The pyramids at Bir Shaghala are possibly of Roman date, but again could be earlier, and the internal structures appear to be different to the Amheida examples (Bashendi 2012: 249; 2013; Warner 2012: 366). Regardless of their exact date, the presence of this tomb-type in Dakhleh points to a connection between the Western Oases and the Fazzan. Other funerary monuments discovered in the Fazzan include a small number of stone mausolea of Hellenistic/Roman style, apparently without associated burials (El-Rashdy 1986: 86–88; Mattingly *et al*. 2003: 189–190). These are comparable to Ptolemaic tombs found in the Sciatbi necropolis in Alexandria (cf. Breccia 1912: xv).

Furthermore, stone stelae are frequently encountered outside tomb entrances (El-Rashdy 1986: 88–94; Mattingly *et al*. 2003: 206–209), often in association with stone offering tables, which are

characterised by indentations, possibly designed to hold offerings of food or liquid (El-Rashdy 1986: 94–98; Mattingly *et al*. 2003: 210–212). Both stelae and offering tables are common Egyptian funerary items, and although the style of the Fazzan examples is rather different, the inclusion of indentations is also a feature of Egyptian offering tables (compare the Early Roman examples from Kellis; Hope 2003b: 270, Fig. 21). One additional Egyptian influence should also be mentioned and that is the discovery of wooden headrests inside some Garamantian tombs (El-Rashdy 1986: 99–102; Mattingly *et al*. 2003: 226).

Other similarities between Egypt and the Fazzan include the use of *qanat* irrigation systems. These have been found in large numbers throughout the Fazzan, and are thought to have been introduced from Egypt at some point during the Persian or Ptolemaic Period (Drake *et al.* 2004; Mattingly *et al*. 2003: 237, 265; Wilson 2006: 209–211). The fact that *qanats* are found throughout the Egyptian oases but not elsewhere in Egypt (CHAPTER 6.2), points to another connection between the Western Desert and the Fazzan. Finally, the adoption of new crops, such as olive, sesame and bread wheat (*Triticum aestivum*), is attested in the Fazzan during the Ptolemaic and Roman periods (Pelling 2005: 401–404), and interestingly these appear to have been adopted for the first time in the Nile Valley and the oases at around the same time or slightly earlier (Drake *et al.* 2004: 104–106; Pelling 2005: 405–408).

Much of the Fazzan evidence outlined above has been dated to the Classical Garamantian period, which corresponds roughly with the period 1–400 CE (Mattingly *et al.* 2003: 348); however, precise dating of the tombs and tomb goods is a difficult task and it is possible that some of the evidence should be placed in the Proto-Urban phase, roughly 500–1 BCE (Mattingly *et al.* 2003: 348), which corresponds with the Persian to Ptolemaic Period in Egypt. Certainly, changes in agricultural production, in the form of new crops and irrigation technology, were already taking place during the first millennium BCE (Drake *et al.* 2004; Pelling 2005; Wilson 2006). The founding of the Garamantian capital at Jarma, which appears to have taken place around the 4th–3rd centuries BCE, can probably be seen as the result of these agricultural developments, as well as a result of increased trade during this period (Drake *et al.* 2004: 99, 108; Mattingly *et al.* 2003: 163). All of this evidence shows that there was indeed communication between Egypt and the Fazzan before the Roman Period, certainly during the Ptolemaic Period and perhaps earlier. This communication appears to have taken place via the oases of the Western Desert and has resulted in a clear Egyptian influence on the funerary practices and agricultural practices of the Garamantes (Mattingly *et al.* 2003: 355). Other cultural influences can be identified in the Garamantian archaeological record, including Greek, Roman and Punic influences, which together with the Egyptian influences were combined with indigenous styles and practices to form a unique local culture in the Fazzan (Mattingly *et al.* 2003: 234). What is clear though is that, during the period corresponding with the Ptolemaic and Early Roman Period in Egypt, and possibly slightly earlier, the Garamantes were exposed to Egyptian cultural influences, likely via the oases of the Western Desert (Mattingly *et al.* 2003: 355; FIGURE 6.4).

If we accept that the Ptolemies were interested in trade coming from the Fazzan, then what exactly were they trying to get their hands on? The types of goods that were traded along the trans-Saharan trade network may have included gold, ivory, semi-precious stones and wild animals, all of which were desired by the Ptolemies (Hölbl 2001: 39), as is evidenced by the items listed in the procession of Ptolemy II, described by Kallixeinos of Rhodes (FGrHist. 627, trans. Austin 2006: text 258; also Rice 1983), as well as by the zoo established by Ptolemy in Alexandria (Diodorus III.36.3; Hubbell 1935; cf. also Manning 2011a: 311). It appears that a similar range of goods was traded to Rome via the Garamantes of the Fazzan and the cities on the North African coast (Mattingly 2006: 200–201; Mattingly *et al.* 2003: 360).

6.5 A MILITARY 'BUFFER ZONE'

From a military point of view, the major external threats to Ptolemaic rule in Egypt were the Macedonian and Seleukid kingdoms to the north and north-east respectively (Hölbl 2001: 304–305). A considerable threat was also posed by the Meroitic kingdom to the south (Burstein 2008: 139; Hölbl 2001: 155–157) and the Carthaginians to the west (Hölbl 2001: 20), if only during the Early Ptolemaic Period in the case of the latter (Hölbl 2001: 54). Ptolemaic rule was also regularly challenged by those living within Ptolemaic-controlled territory, demonstrated most clearly by the revolts that took place both in Cyrenaica and in the Thebaid (Hölbl 2001: 18, 39, 189; Manning 2010: 17), whilst nomadic groups living in the deserts to the east and west of the Nile, and in Lower Nubia, also posed a threat (Hölbl 2001: 55).

To combat against internal uprisings, the Ptolemies placed military garrisons at strategic points throughout the Nile Valley (Polybius XV.25.3–18, trans. Austin 2006: text 282; Manning 2003: 33–34; 2011b: 5). They also established garrisons throughout their foreign territories (Hölbl 2001: 60) and Pausanius (1.7.2, trans. Austin 2006: text 254) tells us that Ptolemy II 'fortified the approaches to Egypt'. Their aim apparently was to create a defensible 'buffer zone', which would assist in preventing direct attacks on Alexandria and the Nile Valley (Polybius V.34.2–9; Hölbl 2001: 28, 66–67; Marquaille 2008: 40–42; cf. also Bagnall 1976: 240–241), although in reality it comprised a fragile balance of alliances, friendships and protectorates (Lloyd 2000: 398–399; Marquaille 2008: 39–40). During the Early Ptolemaic Period, this defensible 'buffer zone' included Cyrenaica, Coele Syria and Cyprus (Hölbl 2001: 28, 66–67), although we should probably also include Lower Nubia (Burstein 2008: 135), the Eastern Desert (Marquaille 2008: 52) and the Western Desert within this zone.

Strabo (XVII.1.45, trans. Austin 2006: text 262) tells us that Ptolemy II Philadelphus was the first to establish way-stations along the route linking the Nile Valley and Berenike on the Red Sea coast, which he achieved by means of the army. Ptolemaic control of the Eastern Desert was achieved through the construction of small fortified installations situated along the desert routes, which were designed to protect water supplies (Gates-Foster 2012b: 211–212; Sidebotham 2011: 29; Sidebotham and Zitterkopf 1995: 45). Similar installations may have been present in the Western Desert, such as at Abu Gerara where the remains of buildings were identified in association with several wells (Site M05; Harding-King 1913: 457; 1925: 211, 214). The Ptolemies were also active in Lower Nubia where they founded new settlements (Hölbl 2001: 189), and established fortified outposts, such as at Qasr Ibrim and Gebel Adda (Adams 1988: 27). They may have also garrisoned soldiers at the Middle Kingdom forts of Buhen and Mirgissa (Burstein 2008: 139). The threat posed by Carthage, and perhaps also the lure of Carthaginian territory, must have influenced early Ptolemaic policy toward Cyrenaica (Hölbl 2001: 20; Huß 2001: 102–103; Mueller 2004: 6), and by extension, the Western Desert of Egypt. The fact that new settlements were founded in Cyrenaica (Mueller 2004; 2006: 143–146), as well as the fact that the Ptolemies chose to establish direct administrative control over the region (Hölbl 2001: 59), clearly demonstrates that they were concerned about creating a defensible 'buffer zone' that would protect them from direct attacks from Carthage (FIGURE 6.5), and which would also enable them to control trade coming into Cyrenaica (Hölbl 2001: 18; Manning 2010: 106; 2011a: 313). In light of this, it seems likely that control of the Western Desert would have been viewed by the Ptolemies as being important to their overall military security. Let us then examine what archaeological evidence there is for the presence of the military in the oases during the Ptolemaic Period.

Throughout Pharaonic history the desert routes were monitored and controlled through the use of outposts and patrols comprising police or soldiers (Darnell 2007a), and this practice certainly continued during the Ptolemaic Period. We do not have specific evidence from the oases, but sources from the Fayum inform us that security forces, such as the *eremophylakes* (desert guards) and the *chersephippos* (mounted desert guards), were employed to protect travellers, guard transport and

generally secure the desert routes (Hennig 2003: 145ff; cf. also Clarysse and Thompson 2006: 173). Furthermore, ostraka from Oxyrhynchos provide evidence for the provisioning of desert outposts between Bahariya and the Nile Valley (Thissen 2013). We also know that military garrisons were placed in the Eastern Desert, as a graffito left by soldiers at the site of al-Kanais, dating to the reign of Ptolemy II (254 BCE), points to the presence of a garrison at that site (Mairs 2010: 158–159; Sidebotham 2011: 29). It is highly likely that *kleruchs* were settled in the oases, given that they were settled in almost all parts of the Nile Valley (Rowlandson 2003: 256–258; cf. also Clarysse and Thompson 2006: 148–154), although there is currently no direct evidence to support this. It is also likely that soldiers were actually garrisoned in the oases, but if so, where were they stationed?

Whilst in the Late Roman Period a network of imposing mud-brick forts was constructed throughout the oases (Kucera 2010; 2012; Rossi 2012), no comparable structures have been identified for the Ptolemaic Period. I would argue that instead of constructing a network of purpose-built military structures, the Ptolemies utilised existing defensible structures wherever they could, and the most obvious choices were temple enclosures. The impressive mud-brick enclosure walls that surround many of the oases temples would have provided a convenient defensible location within which supplies could be secured and soldiers could be stationed (cf. Reddé 1999: 377; Thiers 1995: 507). The temples themselves often occupied only a portion of the associated enclosure, with the rest of the space taken up by storage magazines, administrative buildings and living quarters for temple personnel; thus the temple enclosure functioned as a kind of 'citadel' for the local community (Kemp 2006: 358). There was also access to water, with wells regularly found within temple enclosures in the oases.

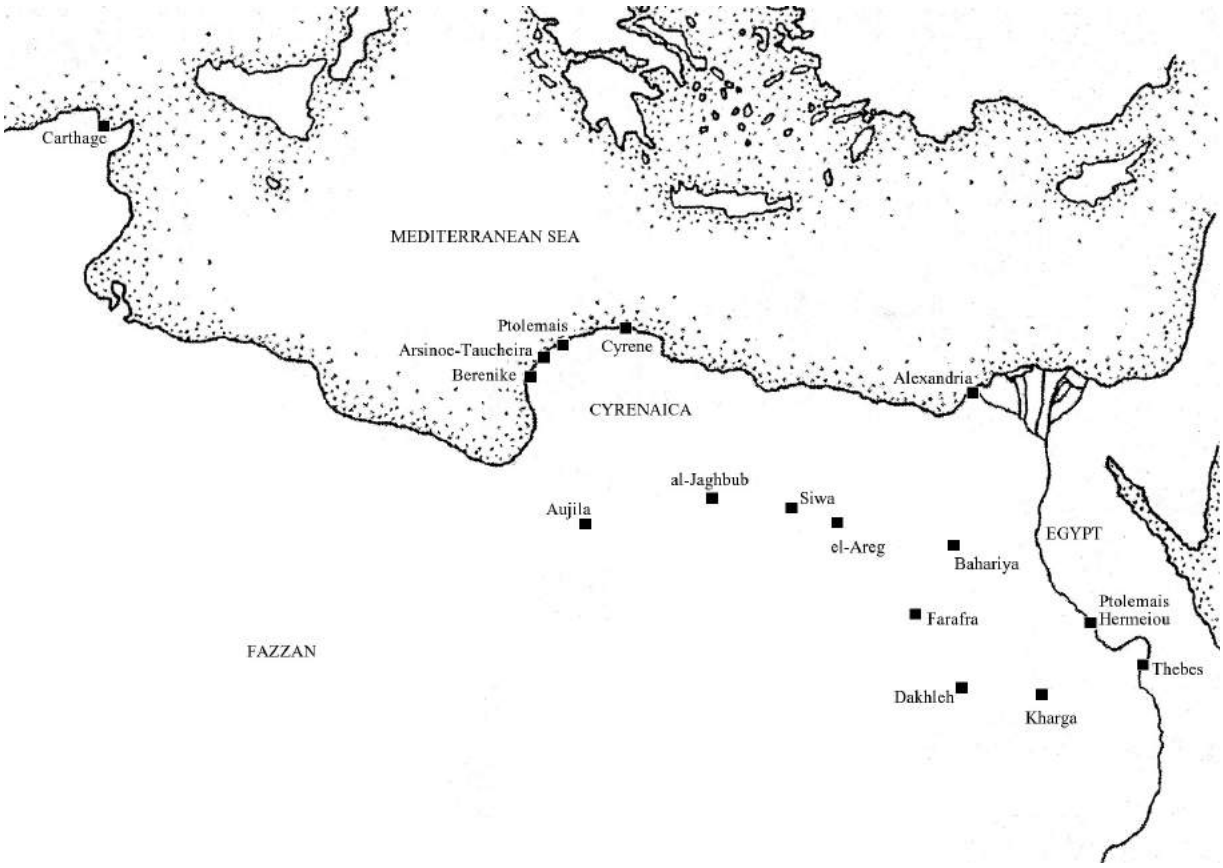


FIGURE 6.5 Map of the eastern Sahara showing the relative positions of Carthage, the Fazzan, Cyrenaica, the Western Oases and Egypt (adapted from Mattingly et al. 2003: 2).

The use of temple enclosures as military garrisons is well-attested for the Ptolemaic Period, although it did occur occasionally during the Persian Period (cf. Dietze 2000: 82; Thiers 1995). Not only were soldiers garrisoned in or near temple enclosures, but it appears that from the 2nd century BCE onwards, military officers and soldiers became a major source of private funding for temple construction, alongside other sources of funding such as that of the king and the temple estate (Dietze 2000; Fischer-Bovet 2014: Chapter 9). Individuals could hold both priestly and military titles and officers were probably used to oversee construction work (Fischer-Bovet 2014: 347). Whether or not the army also played a role in facilitating temple construction in the oases is not yet clear, although there are a few clues that point to the presence of the military in the oases.

At Hibis temple in Kharga there is a Greek dedication inscription, which is partially preserved on a piece of stone lintel, and which records that an 'official' constructed the girdle wall and gateways during the reign of Ptolemy II and Berenike (Winlock 1941: 33, Pl. XLII). The name and title of the official is badly preserved, with only two discernible letters, although it could be reconstructed as '*strategos'* (Evelyn-White and Oliver 1938: 49–50). The dedication of Egyptian temples by military officers is well-attested for the Ptolemaic Period (Fischer-Bovet 2014: Chapter 9), and it may be that this inscription from Hibis is yet another example. It is also worth noting that the original temple enclosure wall seems to have been removed at some point during the Early Ptolemaic Period, and that the enclosure was enlarged substantially, particularly to the east (Winlock 1941: 34–35). We might speculate that such an expansion could have taken place in order to create more space for the garrison.

The temple enclosure at Ghueita is another possible candidate for housing a military garrison. It occupies a good vantage point upon a rock outcrop, and is also situated at a major crossroads (Darnell *et al.* 2013: 8 and Fig. 1). The mud-brick structures that surround the temple have received only limited investigation, so that the nature of the occupation remains largely unclear (D. Klotz pers. comm. 2013). Within the temple, Greek graffiti demonstrate the presence of individuals from Megara, Chalchis, Xanthos and Lycia, who might have been mercenaries (Wagner 1987: 224), although of course this is not necessarily evidence for a military occupation of the site (cf. Thiers 1995: 508).

At Dush in the south of Kharga, the fortified settlement adjacent to the stone temple appears to have been originally built during the Ptolemaic Period and subsequently expanded by the Romans, whom we know stationed a garrison there (Reddé 1999: 377–378). A range of Ptolemaic evidence has been discovered from within the fortified enclosure, including coins, ostraka and pottery (Ballet in Reddé *et al.* 2004: 214–215; Gascou *et al.* 1980: 322, 336; Reddé *et al.* 2004: 172), although there is currently no direct evidence for the presence of a Ptolemaic garrison.

In Dakhleh, the main candidate for the location of a Ptolemaic garrison is Mut al-Kharab. The sheer size of the enclosure and both the height and thickness of the walls would have made it an ideal defensible structure (PLATES A.3–A.4). Evidence for the presence of a military garrison here is lacking, although some clues may be found in the Demotic ostraka from the site. Amongst the ostraka found in Trench 18, one order for payment (Reg. 18/70) preserves the name 'Petosiris' (uncertain), who is given the title 'General' *(mr-mšʿ)* (Vittmann 2012: 30), whilst the same title is also listed on an ostrakon from Trench 22 (Reg. 22/3). In addition, another ostrakon from Trench 18 (Reg. 18/162) preserves the title '*Kalasiris' (gl-šr)* (Vittmann 2012: 30). The exact function of the *Kalasiries* is not completely understood, although they might have been Egyptians with both military and police roles (cf. most recently Fischer-Bovet 2013: 213–214). Alternatively, the Demotic title *gl-šr* could be instead identified with the Greek *phylakitai*, who were a type of police that had no military function (Clarysse and Thompson 2006: 166–168, 176). Whilst none of this is proof that a garrison was stationed at Mut al-Kharab, it does point to the presence of police and military forces in the oasis.

It is also worth considering a possible military function for the mud-brick structure at Qasr al-Haleka in Dakhleh, which according to the surface pottery was in use during the Ptolemaic and Early Roman periods. Based on the layout, this structure has been interpreted as a temple (Mills 1983: 129), and

'although the general appearance is that of a fortress…this might be attributed to its having been built on the top and down the sides of a fossil spring mound' (Mills 1982: 100). As noted above, the interpretation of this structure as a temple does not preclude its use by the military, and its imposing nature and position certainly favour a military function. The building measures 25 x 50 m, with the exterior walls preserved up to 8 m high (PLATES D.15–17), and whilst a cemetery is located nearby, there are no structures in the immediate vicinity apart from a small farmhouse some distance away. The location of the site may also provide a clue to its function; it is positioned at the easternmost point of the Central Region where a stretch of desert separates the oasis into two distinct areas of cultivation. As such it commands an excellent view of all traffic moving between the two areas (FIGURE 6.6).

Interestingly, Site 71 (31/435-N6-2) may have played a similar role. This site is located east of 'Ain Birbiyeh in the foothills of the escarpment, and comprises three mud-brick temples that otherwise appear to have been quite isolated (FIGURE 6.6). The Darb 'Ain Amur ascends the escarpment at this point, so it is perhaps conceivable that the site was used to monitor traffic passing along this route. Similarly, halfway along this route, the site of 'Ain Amur could have also served in such a capacity. Here, there is a temple with a comparatively large mud-brick enclosure, measuring at least 80 m long and preserved to 12 m in height, which could have easily contained a small garrison (FIGURE A6.25).

The situation in Siwa may have been different to that in the southern oases, as Kuhlmann (1998: 163; 2013: 146), points out that the Ptolemies do not appear to have controlled Siwa, despite controlling Cyrenaica. This is based on a passage in Silius Italicus (*Punica* XV: 672ff), in which the last indigenous king of Siwa is reported to have sent an Ammonian army in support of the Carthaginian general Hannibal, despite the policy of Ptolemy IV Philopator to remain neutral in the Second Punic War (Hölbl 2001: 132–133; Kuhlmann 1998: 163). It is likely that Siwa maintained some degree of independence during the Early Ptolemaic Period, but by the latter part of the period Siwa appears to have held a similar status to the other oases, at least from an official point of view, occupying a place in the Edfu Oasis List (cf. CHAPTER 1.4).

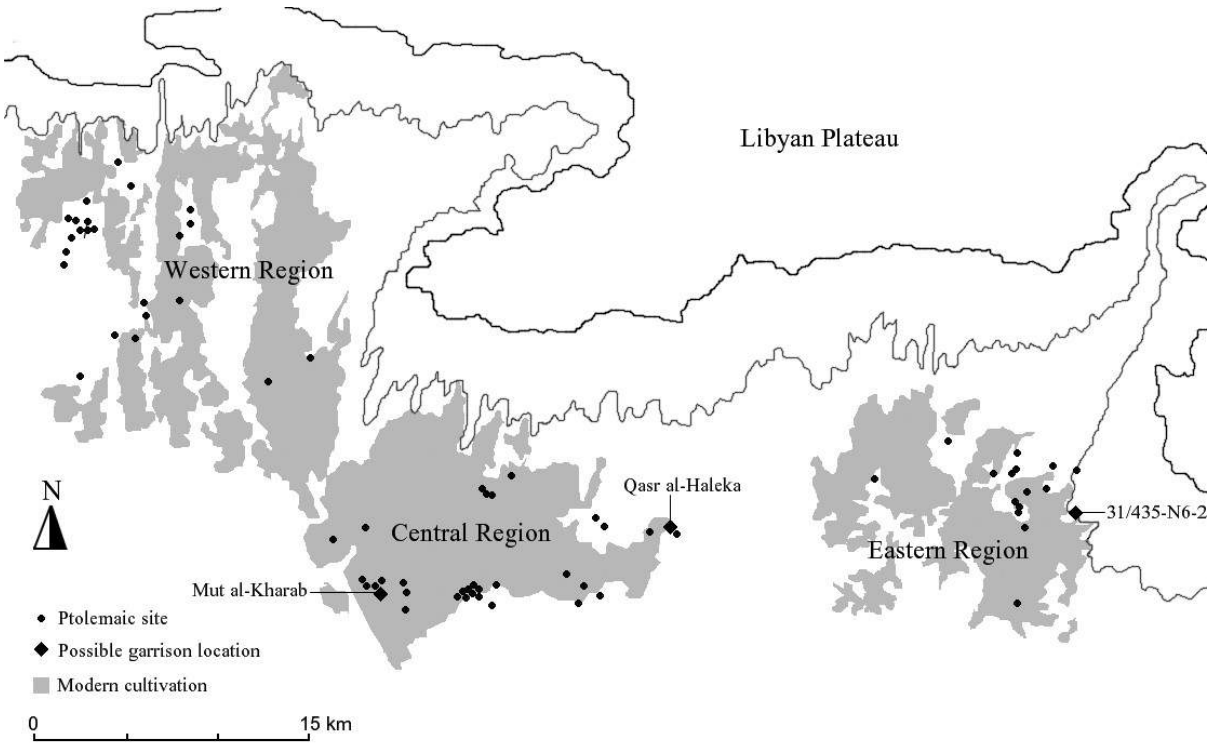


FIGURE 6.6 Map of Dakhleh Oasis showing sites that might have housed garrisons.

We should also consider the possible presence of local nomadic groups in the Western Desert and the role that they could have played, both as a potential threat to Ptolemaic control of the region (cf. Hölbl 2001: 55), and as a source of labour and local knowledge, perhaps being employed as guides (cf. Manning 2010: 107). We know, for instance, that a nomadic tribe called the 'Blemmyes' were present in Nubia during the Ptolemaic Period, and it has been postulated that such groups were possibly employed as herdsman, or even as guides or police in the Eastern Desert at this time (Gates-Foster 2012a: 197; Manning 2010: 107). The presence of such groups in the Western Desert is difficult to detect, as they are probably quite invisible from an archaeological perspective (cf. Gates-Foster 2012a: 202–203 for the Eastern Desert); however, we do know that semi-nomadic Libyan groups were present in the hinterland of Cyrenaica and in Marmarica in the northern part of the Egyptian Western Desert (Mueller 2006: 53). Perhaps such a group can be identified with the *skopoi* (σχοποί), or 'scouts', reported by Diodorus (XVII: 50.3) as one of the forces stationed at Aghurmi in Siwa (Kuhlmann 1988: 93; 2002: 162; 2013: 152). We also have a few references from Nile Valley temple inscriptions of Ptolemaic date, which mention groups known as the Tjehenu (*ṯḥnw*) and Tjemehu (*ṯmḥw*) in association with the Western Oases (CHAPTER 1.4), although it is not clear whether these represent nomadic Libyan groups or inhabitants of the oases, or if the terms were used archaically.

If such groups were indeed present in the Western Desert, they could have been employed as desert guides or guards, but they might have also posed a threat to caravans crossing the desert and could have been perceived as a threat to Ptolemaic control of the oases, whether or not this was the reality. This certainly would have encouraged the Ptolemies to establish a strong military presence in the oases, although the desire to control trade would clearly have also been a factor (Hölbl 2001: 55–56). The placement of garrisons throughout the Nile Valley and indeed the oases would have also acted as a constant reminder of Ptolemaic power for the inhabitants.

6.6 THE PERSIAN LEGACY

We should not view the Ptolemaic strategy of agricultural development and temple construction in the oases as a completely new phenomenon. Certainly, the Persian rulers had already begun to develop such a policy, which was to an extent built upon the policies of the Saite rulers (Cruz-Uribe 2010: 502). During both the Saite and Persian periods, new temple construction can be found in the oases, which reflects a deliberate policy of development that was designed to secure control of the region, most likely with the broader aim of gaining access to long-distance trade and exploiting agricultural production in the oases (Kaper 2012b: 172–174). As Manning (2010: 25) stated, 'the Persians were not especially interested in governing Egypt. They saw it, in the main, as territory through which valuable trade flowed to the oases and across North Africa.' Whilst I do not agree with the first part of this statement, I do think that access to trade flows, along with the integration of this trade into the broader Persian Empire, were major aspirations for the Persian rulers. There was clearly an increase in temple construction in the oases under Darius I (Kaper 2012b: 174), which, together with his statement that he used *ʿš*-wood of the Western Desert' (Atlas Mountain cedar?) to fashion doors for the Ghueita temple (Darnell *et al.* 2013: 16), suggests that the Persians had gained access to North African trade via the Western Oases. The failed attempt by Cambyses to send an army against the Ammonians at Siwa (Herodotus III.17; III.26), along with increased activity in Cyrenaica, demonstrates the importance that the Persians placed on controlling this region (Darnell *et al.* 2013; Kaper 2012b: 172–174; Klotz 2013a: 906–907).

The Ptolemies took what the Persians had begun and developed it further. They embellished existing temples by adding gates (Hibis) and hypostyle halls (Ghueita; Bahrein); however, they took things a step further and implemented a strategy designed to increase land exploitation, resulting in many new settlements and much larger areas of land under cultivation. This strategy was part of a broader policy that saw new settlements and tighter administrative control in Cyrenaica (Mueller 2006: 145–146), the

repair of the Nile-Red Sea canal that had been built during the Late Period (Gates-Foster 2012a: 196; Hölbl 2001: 56; Lloyd 2000: 411), new settlements on the Red Sea coast (Gates-Foster 2012a: 196; Sidebotham 2011; Sidebotham and Wendrich 1998; 2001/2), increased temple building activity and new settlements in Lower Nubia (Adams 1988: 27; Hölbl 2001: 161–162, 189; Wilkinson 2000: 216–219), and a range of projects in the Nile Valley, including the redevelopment of the Fayum (Manning 2010: 139; Mueller 2006: 149–151), an extensive temple building programme (Hölbl 2001: 85–87, 279–280; Manning 2010: 101), and the foundation of new settlements throughout the Nile Valley (Manning 2010: 106–107; Mueller 2006). Many of the administrative structures and economic policies utilised by the Ptolemies can be seen as a continuation of those put in place by the Saite and Persian rulers before them, albeit with slight modifications (Gates Foster 2012a: 191–192; Hölbl 2001: 4; Manning 2010: 27); the development of the Western Oases was no different.

6.7 Conclusion

Throughout this chapter I have argued for the existence of a deliberate Ptolemaic policy aimed at controlling and exploiting the oases of the Western Desert. By developing new settlements, increasing the population and expanding the land available for cultivation, the Ptolemies were able to increase the agricultural production of the oases. As part of the overall strategy, a programme of temple construction and embellishment was implemented throughout the Western Desert. Military garrisons were probably also placed in strategic locations, so that the Ptolemies established control over the oasis trade network that linked the Nile Valley with Cyrenaica, the Fazzan, Nubia and sub-Saharan Africa. Control over this region also had the advantage of forming a military 'buffer-zone', which protected the Nile Valley from the threat of Carthage in the west.

This view is completely at odds with the picture generally painted in the published literature and it is clear that statements like the following can no longer be considered accurate:

> The dilemma for Rome was to acquire additional land resources from which to extract revenue. They needed a new 'Fayum' with all of its untapped wealth and available resources. They found it in the oases of the western desert. Areas in and around Kharga, Dakhla, Farafra, and Bahriya each experienced expansion of populations and recovery of desert lands for agriculture…We saw during the Saite and Persian Period…a decision by the state to expand the area's agricultural means, but during the Ptolemaic Period this process was not continued…There was little incentive to view the oases as an area of potential wealth…
>
> Cruz-Uribe (2010: 502).

The Ptolemies certainly saw the potential wealth in the oases and they targeted the area for development much as they did the Fayum and the Eastern Desert. In many ways they continued a process that had begun during the Saite and Persian periods, and they laid the foundation for the development witnessed under Roman rule. The Romans took the existing infrastructure put in place by the Ptolemies and used it to their advantage, so much so that they are now given credit for the entire process. To say that the Ptolemies 'had little incentive to view the oases as an area of potential wealth', I believe goes against everything that we know about Ptolemaic settlement patterns, foreign policy, economic policy and exploration programmes. Statements such as these are based on a major misunderstanding about the extent of Ptolemaic activity in the Western Desert, which continues to pervade the published literature.

Through a deliberate policy of development, exploitation and control, the Ptolemies maximised the economic potential of the oases. There was no single reason for such a policy; rather control of the oases offered the Ptolemies a number of distinct advantages. The oases were targeted for increased settlement and agricultural development, much as the Fayum was, with the added advantage of year-round water supply (Gill *Forthcoming e*). Wheat, oil and wine were key oasis products, which could be used to supplement the storerooms of the Nile Valley temple estates, or which could perhaps be exported abroad. Either way, increased agricultural production meant increased revenues for the Ptolemies. As areas of comparatively low-population density, the oases also provided room for new settlements and new settlers, who could have been soldiers, migrants from other Ptolemaic controlled territories, or Egyptians relocating from the Nile Valley (Mueller 2006: 180). There is too little evidence to be sure of the identities of these settlers, although there is some evidence from Siwa for the presence of Greeks from Cyrenaica (Kuhlmann 2010a: 220; 2011: 9). Graffiti in the temple of Ghueita in Kharga point to the presence of people from various parts of the Aegean (Wagner 1987: 224), whilst the ostraka from Mut al-Kharab attest both Greek and Egyptian names (Vittmann 2012: 29–30). Evidence from other parts of Egypt demonstrates that immigrants came from all over the Eastern Mediterranean (Mueller 2006: 168–174; Rowlandson 2003: 256; Stefanou 2013: 110–116).

Control of the oases also meant access to long-distance trade networks. Trade coming from northwest Africa could flow into Egypt via the oases, as well as via Cyrenaica, and the Ptolemies looked to exploit this western trade network, perhaps as much as they sought to exploit trade with Arabia and India via the Red Sea. Control of the oases and the western trade network provided an additional advantage; it provided a defensible region or 'buffer zone' between the Nile Valley and the rising power of Carthage, which surely was an ever-present threat in the minds of the early Ptolemies. For all of these reasons, the Ptolemies implemented their policy of development and control throughout the oases. Such a policy was by no means unique. Other Ptolemaic possessions received similar treatment, although modified to meet the peculiarities of the region and the specific aims of the Ptolemies. It is thus surprising that the issue of Ptolemaic policy in the Western Desert has been so neglected in the published literature, and fortunate that it has now begun to receive the attention it deserves.

This study represents the first major synthesis of Ptolemaic Period activity in the Western Desert of Egypt. It demonstrates the need for a holistic approach to the evidence, one which incorporates both archaeological and textual data, and highlights the value of a regional perspective. It also emphasises the need to reconsider established ideas in light of new research, particularly in such a rapidly developing field. Finally, this study demonstrates that so much more work needs to be done in the oases. Whilst the broad regional surveys of projects such as the DOP, the NKOS and l'IFAO have been extremely beneficial to this study, we must begin to focus more exclusively on individual sites. In Dakhleh only a handful of Ptolemaic sites have been investigated in detail, and more need to be examined if we are to reveal a complete picture of Ptolemaic settlement in this oasis. Nonetheless, it is anticipated that this study will provide a basis for all future work on Ptolemaic activity in the oases. It is also hoped that this study will fill a significant gap in our understanding of the history of Ptolemaic Egypt.

APPENDIX 1

MUT AL-KHARAB: CONTEXT DESCRIPTIONS

Note: The following is a description of each of the key Ptolemaic contexts at Mut al-Kharab as discussed in CHAPTER 2. They are grouped according to trench and deposit.

TRENCH 22 (Deposit 1)

CONTEXT (26)	
DIMENSIONS	c. 70 cm x 105 cm; c. 30 cm deep.
DESCRIPTION	A loose deposit of sand, charcoal, ash and mud-brick rubble which fills a cut through the platform [25]. Continues below platform as context (39).
FINDS	Pottery, total 14.0 kg. Faunal remains. Ceramic animal figurine, Reg. 22/058.

CONTEXT (39)	
DIMENSIONS	170 cm x 120 cm; c. 10 cm deep.
DESCRIPTION	A compact rubble deposit comprising mud-brick fragments and some ash. The transition with the overlying platform [25] is blurred, with some water damage/ hardening. Below platform [25] and contexts (26) and (38), above context (40).
FINDS	Pottery, total 21.0 kg. Faunal remains. Fragment of a ceramic figure.

CONTEXT (40)	
DIMENSIONS	170 cm x 120 cm; c. 10 cm deep.
DESCRIPTION	A semi-compacted deposit comprising ash, sand and some mud-brick fragments. A large amount of potsherds was found. *In situ* pots were found at transition between contexts (39) and (40). Below context (39), above (49).
FINDS	Pottery, 24.0 kg. Faunal remains.

CONTEXT (49)	
DIMENSIONS	180 cm x 100 cm; c. 20 cm deep.
DESCRIPTION	A heavily compacted deposit comprising intact and fragmentary mud-bricks and sand. The deposit appears to be water-hardened. Intact pots were found. Below context (40), above context (50).
FINDS	Pottery, total 81.0 kg. Faunal remains.

CONTEXT (50)	
DIMENSIONS	c. 190 cm x c. 120 cm; 13–30 cm deep.
DESCRIPTION	A loosely compacted deposit comprising silty soil, mud-brick fragments and ash lenses. A large amount of pottery was present, including some intact vessels. Below context (49), above context (53).
FINDS	Pottery, total 83.0 kg.

CONTEXT (52)	
DIMENSIONS	30 cm x 160 cm; c. 20 cm deep.
DESCRIPTION	A heavy concentration of pottery within context (50). The matrix is the same as context (50) and is distinguished as a separate context in order to aid the reconstruction of vessels. Below and surrounded by context (50), above context (53).
FINDS	Pottery, total 3.0 kg. Faunal remains.

CONTEXT (53)	
DIMENSIONS	170 cm x 120 cm; 10–12 cm deep.
DESCRIPTION	This deposit is basically a continuation of context (50) but is given a separate designation due to the presence of large amounts of pottery. Much like context (52) this has been done to aid vessel reconstruction. The matrix is similar to context (50). Below context (50), above (54).
FINDS	Pottery, total 3.5 kg. Faunal remains.

CONTEXT (54)	
DIMENSIONS	c. 180 cm x 120 cm; c. 5–10 cm deep.
DESCRIPTION	A semi-compacted deposit comprising clay-rich soil, some ash and some mud-brick fragments. The overlying baulk was removed and the deposit continued to be excavated as context (61). Below context (53), above context (61).
FINDS	Pottery, total 19.5 kg. Faunal remains.

CONTEXT (58)	
DIMENSIONS	c. 48 cm x 170 cm; 100 cm deep.
DESCRIPTION	This deposit is from below the wall baulk and largely comprises pottery. It lies adjacent to contexts (50), (52) and (54) and appears to be a continuation of these. Below wall [37?], above context (61).
FINDS	Pottery, total 58.0 kg.

TRENCH 22 (Deposit 2)

CONTEXT (28)	
DIMENSIONS	c. 190 cm x c. 170 cm
DESCRIPTION	A compacted deposit, perhaps an activity surface, comprising soil, mud-brick fragments, sandstone fragments and some ash. Located between walls [21] and [37].
FINDS	Pottery, total 7.5 kg.

CONTEXT (29)	
DIMENSIONS	c. 190 cm x c. 170 cm; c. 10–20 cm deep.
DESCRIPTION	A semi-compacted mixed deposit comprising sand, ash, mud-brick fragments and some crushed sandstone. There is more ash here than in context (28). Context (29) appears to continue below wall [37] and is probably a continuation of context (28). Below context (28), above context (30).
FINDS	Pottery, total 29.5 kg. Fragment of small limestone statue, Reg. 22/042. Faunal remains.

CONTEXT (30)	
DIMENSIONS	190 cm x 170 cm; 10–20 cm deep.
DESCRIPTION	A semi-compacted deposit comprising sand, mud-brick fragments, sandstone fragments and patches of ash. Some larger sandstone fragments are present but no worked faces are preserved (largest c. 10 x 15 x 5 cm). Below context (29), above context (33).
FINDS	Pottery, total 8.5 kg. Ceramic animal figurine, Reg. 22/057. Faunal remains.

CONTEXT (33)	
DIMENSIONS	c. 190 cm x 170 cm; c. 15 cm deep.
DESCRIPTION	A deposit of compacted sand and clay located at the south end of the excavation area. It is distinguished from context (30) by the lack of sandstone fragments. Intact vessels were found in the upper horizon. Below context (30), above context (34).
FINDS	Pottery, total 12.0 kg. Faunal remains.

CONTEXT (34)	
DIMENSIONS	c. 190 cm x c. 170 cm; 40–55 cm deep.
DESCRIPTION	A distinct deposit of sand, clay and ash. Basically the same as context (33) but distinguished by the presence of extensive burning and ash. Below context (33), above context (36).
FINDS	Pottery, total 11.0 kg. Faunal remains. Fragment of faience. Small ceramic disc, Reg. 22/056. Small sandstone block, 7.0 x 6.0 x 3.0 cm, traces of incised dec. and red paint, Reg. 22/059.

TRENCH 28 (Deposit 1)

CONTEXT (21)	
DIMENSIONS	c. 220 x 175 cm and c. 50 cm deep.
DESCRIPTION	A deposit of compacted fill comprising irregular mud-brick fragments and a scatter of potsherds. The compaction decreases at a depth of around 50 cm but the matrix remains the same; the context was changed to (24) but the transition is indistinct. The deposit separates easily from the surrounding walls [9], [23] and [22]. Overall this appears to be a deliberate surface. Below (13) and above (24).
FINDS	Pottery, total 6.0 kg. A potsherd with a stamped seal impression of a lizard(?) and uncertain signs, Reg. 28/032.

CONTEXT (24)	
DIMENSIONS	c. 220 x 175 cm and 25–35 cm deep.
DESCRIPTION	A moderately friable deposit of mud-bricks and mud-brick fragments. Similar to Context (21) but less-compacted. There are no organic inclusions or sand, only potsherds. The deposit incorporates a horizon of intact ceramic vessels (although they are squashed) and a scattering of whole mud-bricks which together are designated as context (25). Context (24) continues below the surrounding walls on all sides and thus predates the walls. It appears to be a layer of packing, perhaps intended to create a level surface for the overlying structure. Below (21) and above (25), (26) and (30).
FINDS	Pottery, total 3.1 kg.

CONTEXT (25)	
DIMENSIONS	180 x 175 cm and 5–8 cm deep.
DESCRIPTION	A moderately compacted deposit of yellow clay with scattered mud-brick fragments and a number of intact pottery vessels (slightly crushed). Below (25) is a deposit of soft clay with ashy fill (35) in the SW. Articulated wall collapse protrudes from the S baulk. Below (24).
FINDS	Pottery. An iron blade from a mattock, Reg. 28/054.

CONTEXT (35)	
DIMENSIONS	70 x 80 cm and 2–5 cm deep.
DESCRIPTION	A shallow deposit of fine ash and fine sand/silt. Ash comprises approximately half of the matrix. No botanical or faunal remains were found. The deposit is very loosely compacted and clearly distinct from the underlying context (36). Below (25) and above (36). Appears to predate the construction of Building 1, walls [22] and [23].
FINDS	Pottery.

CONTEXT (36)	
DIMENSIONS	145 x 175 cm and 2–5 cm deep.
DESCRIPTION	A slightly friable deposit of clay and fine sand with some patches of ash. Some potsherds are scattered throughout. The deposit is clearly sealed beneath the packing deposit (25). Above context (38).
FINDS	Pottery, total 0.45 kg. Faunal remains including fragments of eggshell.

CONTEXT (38)	
DIMENSIONS	120 x 175 cm and 5–8 cm deep.
DESCRIPTION	A compacted clay deposit with a minor amount of charcoal and a few potsherds. Below context (36). Overlies a more compacted deposit which may be *in situ* mud-brick coursing, although the transition is blurred.
FINDS	Pottery, total 1.0 kg.

TRENCH 28 (Deposit 2)

CONTEXT (34)	
DIMENSIONS	250 x 150 cm and 6–12 cm deep.

DESCRIPTION	A moderately compacted deposit of mud/clay with scattered mud-brick fragments. The upper surface has been partially cut into. It appears to be a packing deposit and is equivalent to (21) in the adjacent space. The disturbed upper part of the packing was removed and the deposit was renumbered (37). Below (27) and above (37).
FINDS	Pottery, total 3.0 kg. Faunal remains.

CONTEXT (37)	
DIMENSIONS	250 x 150 cm and c. 60 cm deep.
DESCRIPTION	A heavily compacted deposit of mud-brick packing. Very similar to (21) in the adjacent space and probably the same deposit. Part of an in situ yellow brick structure [42] is visible below (37) at the west end. Below context (34).
FINDS	Pottery, total 8.5 kg. Faunal remains.

CONTEXT (41)	
DIMENSIONS	204 x 150 cm and 25–30 cm deep, plus an area 160 x 80 cm, c. 20cm deep.
DESCRIPTION	A deposit of heavily compacted clay/mud packing with fragments of mud-brick. Below context (37) and is essentially equivalent to it. Two pottery vessels were found at the base of the deposit at the transition to an underlying deposit of loose sand and ash (66). One is a large storage jar, which was crushed and projecting from the north baulk, whilst the other is a Bes-vessel. The deposit seems to be a packing layer for the construction of the upper structure.
FINDS	Pottery, total 3.6 kg. Faunal remains.

TRENCH 31

CONTEXT (19)	
DIMENSIONS	170 x 150 cm.
DESCRIPTION	A compacted fill deposit comprising clay, fragmentary mud-brick of various sizes, patches of ash and minor amounts of charcoal. There is also an abundant amount of pottery. The deposit continues to the N below the wall [18] and the surface (22). On the W it falls away from the structure [20]. It seems to be a purpose laid packing deposit. It is truncated by the intrusive cut <13>. Below (17), [18] and (22).
FINDS	Pottery, total 26.0 kg. Faunal remains. Ostrakon. Faience fragment; moulded/incised, crosshatch design. Glass fragment; semi-opaque, white. Worked stone x 2; also a sandstone fragment with gypsum plaster adhered to one side. Baked brick fragments x 2.

CONTEXT (28)	
DIMENSIONS	130 x 150 cm and c. 20 cm deep.
DESCRIPTION	A deposit of fill which is basically a continuation of context (19). It comprises mud-brick fragments, clay/mud and a small amount of fine sand, along with a scattering of potsherds. This deposit is truncated by the intrusive pit <13>, and the fill of the pit (29) is similar to (28) although less compacted. There is some risk of contamination from the fill of the pit. The base of context (28) was not reached. Below context (19).
FINDS	Pottery, total 7.0 kg.

TRENCH 18

CONTEXT (6)	
DIMENSIONS	Throughout trench, unknown depth.
DESCRIPTION	A dense fill deposit, which contains mud-brick rubble and fragments of sandstone blocks. The pottery ranges in date from Late Period to Islamic. Below context (5), overlies context (15). Equivalent to context (7).
FINDS	Demotic ostraka x 8. Pottery. Fragments of decorated sandstone blocks.

CONTEXT (7)	
DIMENSIONS	122 x 200 cm and 62 cm deep.
DESCRIPTION	A dense fill deposit, which is located in the doorway [13]. It comprises mud-brick rubble and sandstone fragments. Pottery and ostraka were also found; the pottery is of mixed date. Below context (1); equivalent to context (6).
FINDS	Demotic ostraka x 19. Pottery, total 14.5 kg.

CONTEXT (15)	
DIMENSIONS	Unknown.
DESCRIPTION	A deposit of mud-brick, which probably represents an original floor level. This covers the area of the room, apart from the north-west corner, which is designated separately as Context (18). A few ostraka were found in this context, as were some fragments of decorated stone blocks, which may have originated from the paving in the adjacent room (Trench 21). Below context (6).
FINDS	Demotic ostraka x 25. A mud jar-sealing, eroded, Reg. 18/026.

CONTEXT (17)	
DIMENSIONS	Unknown.
DESCRIPTION	A powdery deposit containing a large number of demotic ostraka. Located 30 cm below floor (18) in the north-east corner of the room. Above context (20).
FINDS	Demotic ostraka x 116.

CONTEXT (18)	
DIMENSIONS	60 x 57 cm.
DESCRIPTION	A possible section of mud-brick floor, located in the south-east corner of the room. Two courses of mud-brick are preserved and are situated over rubble fill. A small amount of pottery was recovered, and ranges in date from the Old Kingdom to the Ptolemaic Period. Below context (16), overlies context (17).
FINDS	Pottery.

CONTEXT (19)	
DIMENSIONS	12 cm deep.
DESCRIPTION	A sandy, powdery fill deposit which covers the area of the room, apart from the north-east corner, which is designated context (20). The fill comprised some mud-brick and stone

	fragments, as well as pottery, which ranges in date from Old kingdom to Late Period. Below context (17), overlies context (21).
FINDS	Pottery, total 7.5 kg. Ostrich eggshell. Faience plaque.

CONTEXT (20)	
DIMENSIONS	15 cm deep.
DESCRIPTION	In the northeast corner of the trench at the level of the lowest course in the east wall. Below (17).
FINDS	Pottery. Demotic ostraka x 11. Ptolemaic coin, Reg. 18/150.

CONTEXT (22+24)	
DIMENSIONS	122 x 76 cm; 65 cm deep.
DESCRIPTION	A foundation deposit located 42 cm below the lowest course of the east wall [14]. Projects into sand under the north wall [8]. Overlies and partially mixed with a shallow deposit of clean sand. Old Kingdom/Sheikh Muftah material is associated with the lowest part of the deposit and has probably been cut through by the pit. Within pit (25).
FINDS	Ceramic and plaster moulds for the production of inlays. Piece of glass inlay, Reg. 18/181. A greywacke platter and greywacke rod. A faience tile. A plaster head, Reg. 18/194. A plaque with the name Psamtek A bronze Osiris figurine, Reg. 18/180. One demotic ostrakon.

CONTEXT (26)	
DIMENSIONS	5–10 cm deep.
DESCRIPTION	A deposit of clean sand, located beneath and around the foundation pit (25).

CONTEXT (29)	
DIMENSIONS	Unknown.
DESCRIPTION	A deposit of fill within the foundation pit (25). Below context (24).
FINDS	Pottery, 1.0 kg; Old Kingdom and Ptolemaic.

TRENCH 15

CONTEXT (18)	
DIMENSIONS	220 cm x 387 cm; c. 5 cm deep.
DESCRIPTION	A flat mud surface which appears to be a floor. Below context (17) and walls [12], [13] and [16]. Above context (28).
FINDS	Pottery. Ostraka x 5.

CONTEXT (28)	
DIMENSIONS	c. 200 cm x 387 cm.
DESCRIPTION	A layer of soil and ash, grey/black in colour and very fine. Below (18) and above (34).
FINDS	Pottery. Ostrakon.

TRENCH 20

CONTEXT 25	
DIMENSIONS	140 x 260 cm.
DESCRIPTION	A deliberate surface. Patches of mud plaster floor are preserved in places and are designated as 23. Both 23 and 25 should be considered a single living surface. Potsherds are scattered on the floor in places. Overlies and seals context (35).

CONTEXT (35)	
DIMENSIONS	130 x 240 cm and c. 30 cm deep.
DESCRIPTION	A dense but loose deposit of powdery, fine sand/silt with some small lumps of mud-brick and a high concentration of pottery. The upper part of this deposit appears to be a deliberate surface 25. Above context (36).
FINDS	Pottery, total 108.0 kg. Storage bin fragments; coarse ceramic x 3. Large sandstone blocks; roughly worked x 3. Sandstone grinding stone. Fragment of a sandstone slab. Fragment of a sandstone lintel or jamb. Fragment of moulded gypsum plaster.

CONTEXT (36)	
DIMENSIONS	-
DESCRIPTION	The lowest horizon of context (35) appeared slightly different and was thus recorded separately as context (36). This had a large number of complete vessels of Late Period date, which may be slightly earlier in date than the pottery from context (35). Below context (35). The transition between (35) and (36) is indistinct.
FINDS	Pottery; complete vessels.

APPENDIX 2

POTTERY ASSEMBLAGES FROM MUT AL-KHARAB

Trench/ Context	*Pot Number(s)*
Trench 22 Context 26 ….	1–23
Trench 22 Context 28 ….	24–48
Trench 22 Context 29 ….	49–67
Trench 22 Context 30 ….	68–80
Trench 22 Context 33 ….	81–96
Trench 22 Context 34 ….	97–144
Trench 22 Context 39 ….	145–167
Trench 22 Context 40 ….	168–191
Trench 22 Context 49 ….	192–224
Trench 22 Context 50 ….	225–304
Trench 22 Context 52 ….	305–314
Trench 22 Context 53 ….	315–348
Trench 22 Context 54 ….	349–365
Trench 22 Context 58 ….	366–409
Trench 28 Context 21 ….	410–420
Trench 28 Context 24 ….	421–429

Trench/ Context	*Pot Number(s)*
Trench 28 Context 25 ….	430–440
Trench 28 Context 34 ….	441–458
Trench 28 Context 37 ….	459–479
Trench 28 Context 41 ….	480–488
Trench 31 Context 19 ….	489–532
Trench 31 Context 28 ….	533–553
Trench 18 Context 7 …...	554–556
Trench 18 Context 15 ….	557–560
Trench 18 Context 17 ….	561–562
Trench 18 Context 20 ….	563–564
Trench 18 Context 22 ….	565–566
Trench 18 Context 29 ….	567
Trench 15 Context 18 ….	568–613
Trench 15 Context 28 ….	614–650
Trench 20 Context 35 ….	651–759
Miscellaneous …….	760–784

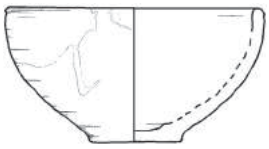
NUMBERS 1–12 TRENCH 22 CONTEXT 26 (1 OF 2)

1. //
Rd. 18.0
A1a P1a

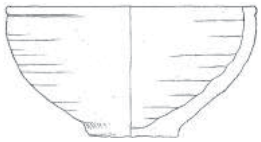
2. //
Rd. 14.0
A1a P1a
Rim only pres.

3. //
Rd. 13.0
A1a P1a

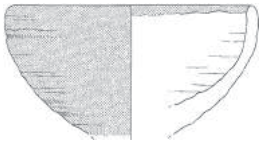
4. //
Rd. 12.0 Bd. 4.0
Ht. 5.0
A1a P1a



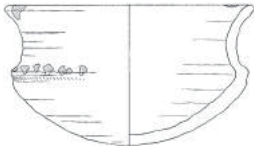
5. //
Rd. 12.0
A1a Sc1
Rim only pres.



6. //
Rd. 12.0
A1a Sc1
Rim only pres.



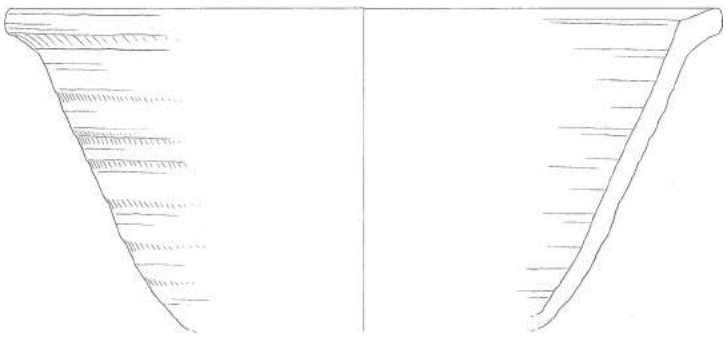
7.
Rd. 12.0 Pht. 7.0
A1a Sm1
Red slip rim/ext.
Cream slip int.



8.
Rd. 13.0 Ht. 7.0
A1b Dc2
Red dots.
Complete profile.
PLATE B.1

9.
Rd. 36.0 Pht. 11.0
A1a Dc1
Red rim.

10. //
Rd. 20.0
A1b Sc2

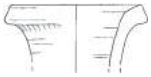


11.
Rd. 38.0 Pht. 17.0
A1a Sc1

12.
Rd. 20.0 Pht 8.0
A1a Sc1

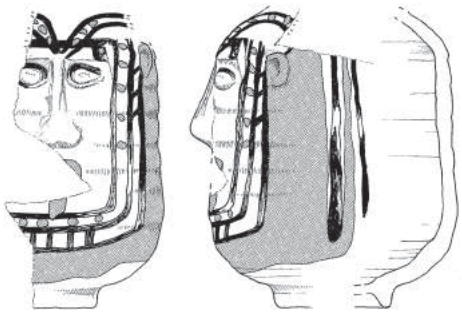
NUMBERS 13–23 TRENCH 22 CONTEXT 26 (2 OF 2)

13.
Rd. 40.0 Bd. 36.0 Ht. 12.0
A4* P4 *Grey core
Profile pres.

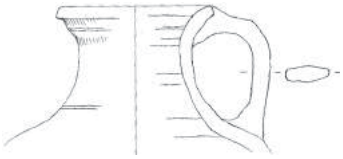


14.
Rd. 8.0 Pht. 3.0
A1a Sc1

15.
Rd. 12.0 Pht. 5.0
A1a Dc1
Red rim, black bands.

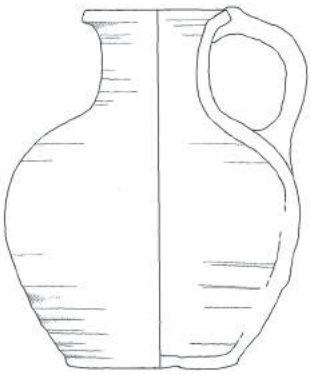


16.
Bd. 6.0 Pht. 15.5
A1a Dc1 (ext.)
Red and black dec., applied and modelled features.
PLATE B.2



17. //
Rd. 9.0
A1a Sc1
Rim-shoulder-handle stub.

18.
Rd. 13.0 Pht. 7.0
A1b Dc2
Black bands.



19. //
Rd. 9.0
A1a P1a
Rim only pres.

20.
Rd. 11.0 Pht. 3.0
A2a P2a

21. //
Rd. 12.0
B3b P9

22.
Rd. 14.0 Bd. 12.0 Ht. 4.5
A1a P1a
Complete profile.

23. //
Rd. 16.0
A1a P1a
Rim pres.

NUMBERS 24–35 TRENCH 22 CONTEXT 28 (1 OF 2)

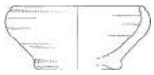
24.
Rd. 18.0 Bd. 8.0 Ht. 3.8
A1a P1a
Complete profile.

25.
Rd. 16.0 Bd. 7.0 Ht. 3.0
A1a Sr1
Almost complete profile.

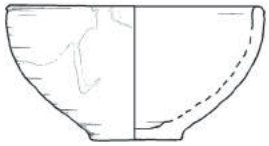
26. //
Rd. 11.0
A1a P1a
Rim pres.

27. //
Rd. 13.0
A1a P1a
Rim pres.

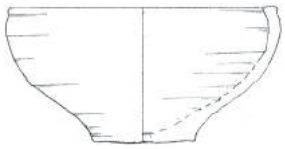
28. //
Rd. 12.0 Bd. 6.0
Ht. 4.0
A1a P1a
Complete profile.



29.
Rd. 6.8 Bd. 4.4
Ht. 3.2
A1a P1a
Almost complete profile.



30. //
Rd. 13.0
A1a Sc1
Rim only pres.

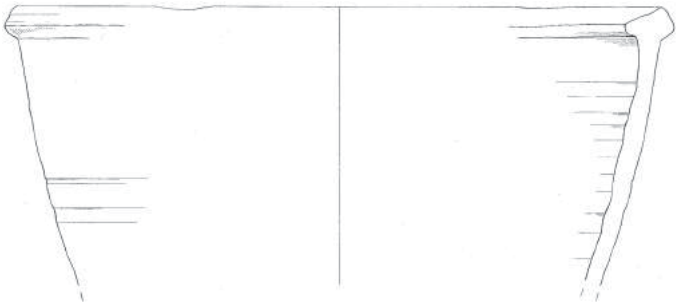


31. (Reg. 22/044)
Rd. 14.0 Bd. 5.0 Ht. 7.0
A1a P1a
Complete.

32.
Rd. 11.0
Pht. 4.0
A1a P1a

33.
Rd. 28.0 Pht. 6.0
A1a* Sc1 (int.) *Low fired.

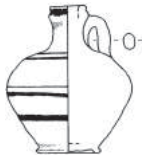
34. //
Rd. 32.0
A1a Sc1



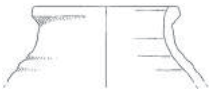
35. //
Rd. 36.0
A1a Dc1
Possible red rim, eroded.

NUMBERS 36–48 TRENCH 22 CONTEXT 28 (2 OF 2)

36.
Rd. 36.0 Pht. 8.0
A4* P4 *Black core.



37.
Rd. 2.0 Bd. 3.5
Ht. 7.5
A1a Dc1
Black bands.
Complete.



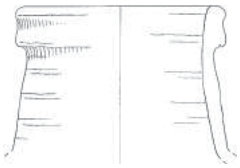
38.
Rd. 10.0
A1b Sc2

39.
Rd. 10.0
A1b Sc2

40. //
Rd. 9.0
A1a P1a

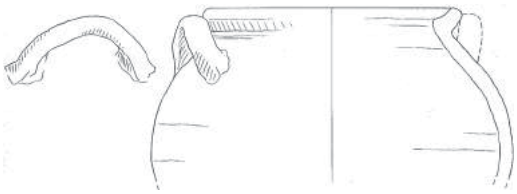
41.
Rd. 13.0 Pht. 5.5
A1a Sc1

42. //
Rd. 14.0
A1a Sc1



43.
Rd. 12.0 Pht. 8.0
A1b Sc2

44.
Rd. 14.0
A1a Sc1 (ext.)



45. //
Rd. 14.0 Pht. 9.0
B3* P9 *Grey core.
1 handle pres.

46.
Rd. 14.0
A1a Sc1 (ext.)

47.
Rd. 30.0
A1a Sc1

48. //
Rd. 18.0 Bd. 14.0 Ht. 6.5
A1a P1a
Complete profile.

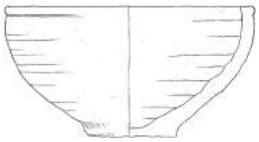
NUMBERS 49–60 TRENCH 22 CONTEXT 29 (1 OF 2)

49. //
Rd. 18.0
A1a P1a
Rim pres.

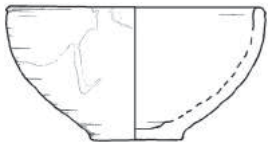
50. //
Rd. 12.0
A1a P1a
Rim pres.

51.
Rd. 8.0
Import (Greek)
Black polished.
Fine, brown/
orange fabric.
PLATE B.3

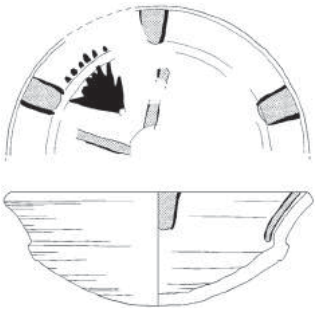
52. //
Rd. 14.0 Bd. 6.5 Ht. 4.5
A1a P1a
Complete profile.



53. (Reg. 22/046)
Rd. 13.0 Bd. 4.5 Ht. 7.0
A1a Sc1
Complete profile.

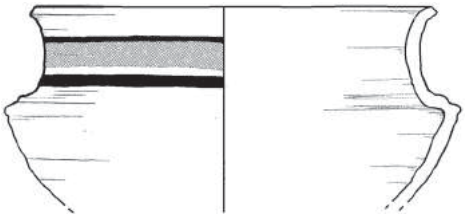


54. (Reg. 22/045)
Rd. 13.5 Bd. 5.0 Ht. 7.0
A1a Sc1 (int./ ext. UB)
Near complete; 2 examples.
PLATE B.4



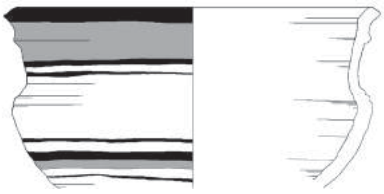
55.
Rd. 16.0 Ht. 6.0
A1a Dc1
Black and red dec.
Complete profile.

56.
Rd. 18.0
A1a Dc1
Black bands and rim.

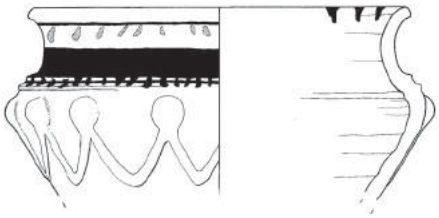


57.
Rd. 19.5? Pht. 10.5
A1a Dc1
Red and black bands.
PLATE B.5

58. //
Rd. 20.0
A1a Sc1



59.
Rd. 19.0 Pht. 9.5
A1b Dc2
Black and red bands.
PLATE B.6



60.
Rd. 20.0 Pht. 10.0
A1a Dc1
Black and red dec; modelled dec.
PLATE B.7

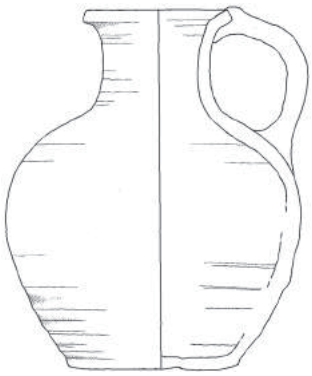
NUMBERS 61–67 TRENCH 22 CONTEXT 29 (2 OF 2)

61.
Rd. 13.0 Pht. 6.0
A1a Sc1

62.
Rd. 13.0 Pht. 5.5
A1b Sc2

63.
Rd. 32.0 Pht. 7.0
A1a Sc1

64.
Rd. 36.0 Pht. 7.0
A1a Sc1



65. //
Rd. 9.0
A1a P1a
Rim only pres.

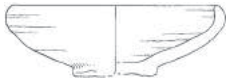
66.
Rd. 11.0
A2a P2a

67.
Rd. 10.0 Pht. 6.0
A1a P1a

NUMBERS 68–80 TRENCH 22 CONTEXT 30

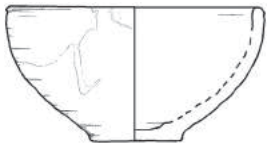
68. //
Rd. 14.0
A1a P1a
Rim pres.

69.
Rd. 12.0 Pht. 5.5
A1a P1a
Blackened ext.



70. //
Rd. 14.0 Bd. 5.0
Ht. 4.0
A1a P1a
Complete profile.
3 examples.

71. (Reg. 22/047)
Rd. 12.0 Bd. 6.0 Ht. 5.0
A1a P1a/Sr1? (ext.)
Complete profile.



72. //
Rd. 14.0
A1a Sc1
Rim pres.

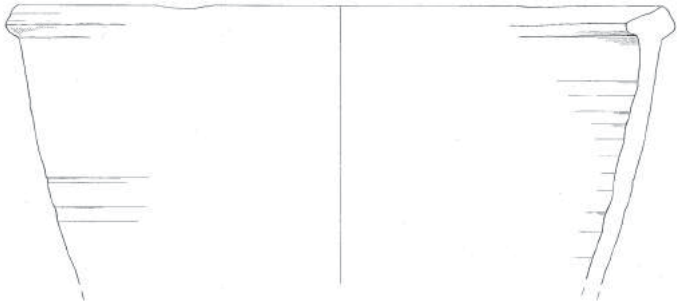
73.
Rd. 4.0 Bd. 3.0
Ht. 7.0
A1a P1a
Complete.

74.
Rd. 16.0 Pht. 7.0
A1a Sc1

75. //
Rd. 23.0
A1a Sc1

76.
Rd. 28.0 Pht. 10.0
A1a Sc1

77.
Rd. 26.0 Pht. 12.0
A1a Sc1



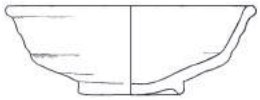
78. //
Rd. 44.0
A1a Sc1

79.
Rd. 28.0 Pht. 6.0
A1a Dc1
Black and red dec.

80.
Rd. 14.0
B1 P6

NUMBERS 81–96 TRENCH 22 CONTEXT 33

81. //
Rd. 18.0
A1a P1a
Rim pres.



82. //
Rd. 13.0
A1a P1a
Rim pres.

83. //
Rd. 10.0
A1a P1a
Rim pres.

84.
Bd. 6.5
A1a P1a

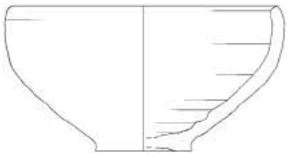
85. //
Rd. 12.0
A1a P1a
Rim pres.

86. // (Reg. 22/049)
Rd. 11.5 Bd. 5.0
Ht. 4.5
A1a P1a
Complete.

87.
Rd. 12.0 Bd. 6.5 Ht. 4.5
A1a P1a
Complete profile.

88.
Rd. 9.0 Bd. 3.5
Ht. 4.5
A1a P1a
Complete profile.

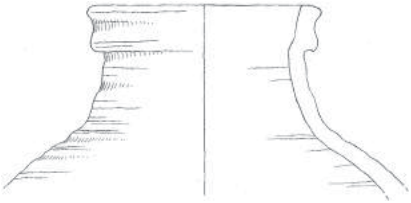
89.
Rd. 13.0 Pht. 5.0
A1a P1a



90. //
Rd. 14.0
A1a Sc1
Rim pres.

91.
Rd. 20.0 Pht. 7.0
A2b Sc4

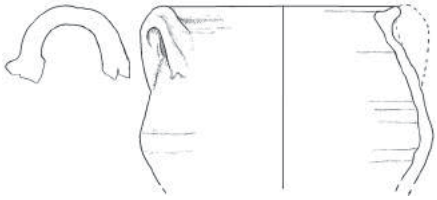
92. //
Rd. 32.0
A1a Sc1



93.
Rd. 12.0–12.5 Pht. 10.0
A1a Sc1

94.
Rd. 40.0 Pht. 8.0
A1a Sc1

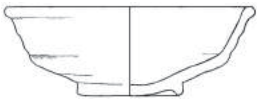
95.
Rd. 10.0
A1a Sc1



96. //
Rd. 14.0
B3 P9
Rim-UB-handle pres.; blackened ext.

NUMBERS 97–113 TRENCH 22 CONTEXT 34 (1 OF 4)

97. //
Rd. 18.0
A1a P1a
Rim pres.



98. //
Rd. 13.0 Bd. 7.0 Ht. 5.0
A1a P1a
Post-firing hole in base.
Complete profile.

99. //
Rd. 13.0
A1a P1a
Rim pres; 2 examples.

100. //
Rd. 16.0
A1a P1a
Rim pres.

101. (Reg. 22/053)
Rd. 11.0 Bd. 5.0
Ht. 3.5
A1a Sc1
Complete.

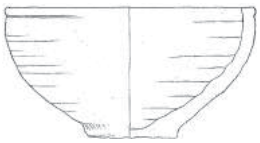
102. //
Rd. 12.0 Bd. 5.0 Ht. 4.5
A1a P1a
Complete profile; 2 examples.

103.
Rd. 16.0
A1a Sc1
2 examples.

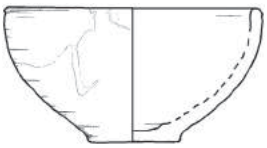
104. //
Rd. 18.0
A1a P1a
Comparable profile; without handle.

105. //
Rd. 14.0
A1a P1a
Rim pres.

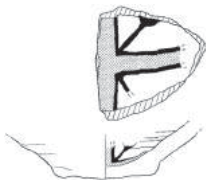
106. // (Reg. 22/054)
Rd. 13.0 Bd. 5.0 Ht. 7.0
A1a Sc1
Blackened ext. Complete.



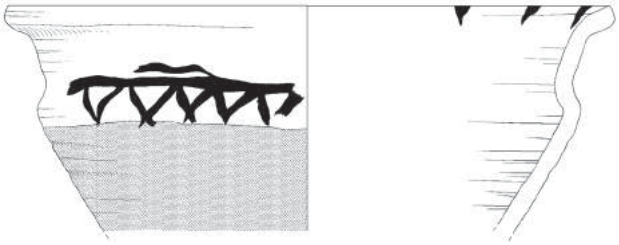
107. //
Rd. 14.0
A1a Sc1
Rim pres.



108. //
Rd. 13.0
A1a Sc1
Rim pres; 2 examples.



109.
Bd. 5.5
A1b Dc2
Red and black dec.



112.
Rd. 32.0 Pht. 12.0
A1a Dc1 (int./ext.)
Black and red dec.
PLATE B.8

110.
Rd. 16.0
A1a P1a

111. //
Rd. 12.0 Bd. 14.0 Ht. 4.0
A1a P1a
Complete profile.

113.
Rd. 28.0 Pht. 4.0
A1a Sr1

NUMBERS 114–123 TRENCH 22 CONTEXT 34 (2 OF 4)

114.
Rd. 40.0? Pht. 6.0
A4 P4

115.
Rd. 22.0
A1a P1a

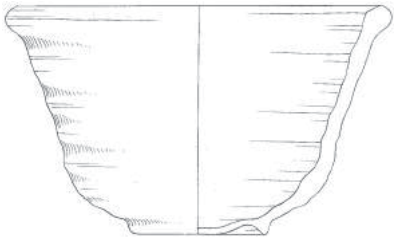
116.
Rd. 20.0
A1a P1a

117. //
Rd. 20.0
A1b Sc2

118. //
Rd. 20.0
A1a P1a

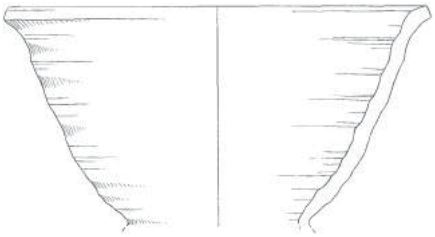
119. //
Rd. 24.0
A1a Sc1

120.
Rd. 24.0 Pht. 8.0
A1a P1a



121.
Rd. 19.0 Bd. 7.5 Ht. 12.0
A1a Sc1 (int.)
Complete profile.

122. //
Rd. 22.0
A1a Sc1



123.
Rd. 22.0 Pht. 12.0
A1a Sc1

NUMBERS 124–135 TRENCH 22 CONTEXT 34 (3 OF 4)

124.
Rd. 36.0 Pht. 7.0
A1a Sc1

125.
Rd. 30.0? Pht. 10.0
A4 P4

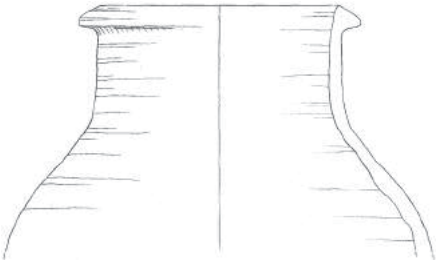
126.
Rd. 24.0 Pht. 10.0
A1b Sc2

127.
Rd. 3.5 Bd. 3.0 Ht. 5.0
A1a P1a/Sc1?
Spout missing.

128. //
Rd. 14.0
A1a Dc1
Black band.

129.
Rd. 12.0
A1a Dc1
Black band.

130.
Rd. 14.0?
A1a P1a

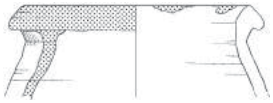


131. //
Rd. 14.0
A1a Sc1

132.
Rd. 11.0
A1a Sc1

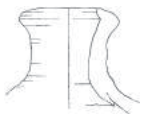
133. //
Rd. 12.0
A1a Sc1

134.
Rd. 11.0 Pht. 7.0
A1a Sc1

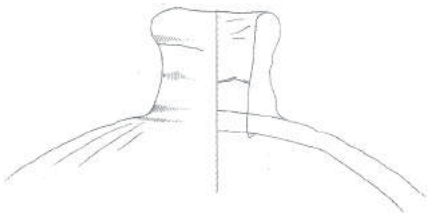


135.
Rd. 14.0
A1a Dc1
Red rim.

NUMBERS 136–144 TRENCH 22 CONTEXT 34 (4 OF 4)



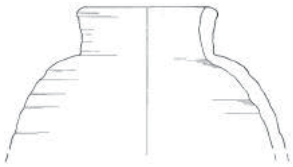
136.
Rd. 5.0 Pht. 5.5
A2a Sc3



137. //
Rd. 6.5–7.0
A1a P1a

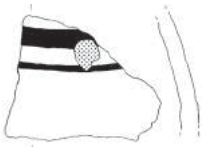
138.
Rd. 9.0
A1a P1a

139. //
Rd. 10.0
A1a P1a



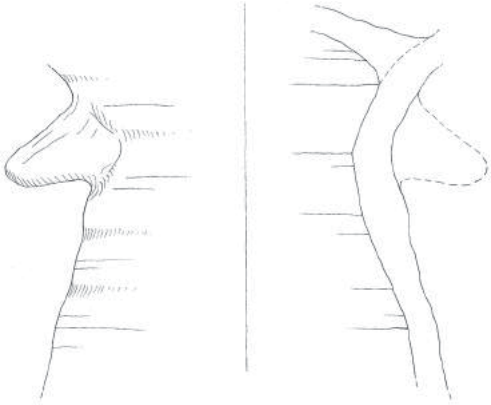
140.
Rd. 8.0 Pht. 8.0
A1a* P1a
*Blackened core.

141.
Bd. 10.0
A1a Sc1



142.
B/S
A1a Dc1
Black and red dec.

143.
Bd. 28.0
A1a P1a
1 foot pres.

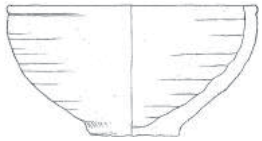


144.
Diam. c. 12.0 at narrowest point
Pht. 20.0
A4 P4
1 lug/handle pres.

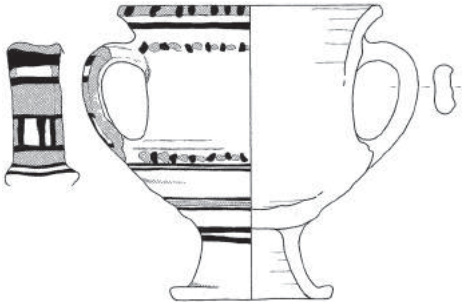
NUMBERS 145–154 TRENCH 22 CONTEXT 39 (1 OF 2)

145. //
Rd. 20.0
A1a P1a
Rim pres.

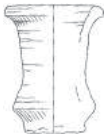
146. //
Rd. 12.0
A1a P1a
Rim pres.



147. //
Rd. 12.0
A1a Sc1
Rim pres.



149. (Reg. 22/061)
Rd. 14.0 Bd. 8.0 Ht. 15.5
A1a Dc1
Red and black dec.; Complete.
PLATE B.9



150. (Reg. 22/060)
Rd. 5.0 Bd. 3.0
Ht. 6.5
A1a P1a
Complete.

148.
Rd. 18.0 Pht. 7.0
B3 P9
Blackened ext.

151.
Rd. 20.0 Pht. 4.0
A1a Sc1

152. //
Rd. 20.0
A1a Sc1

153.
Rd. 26.0 Pht. 7.0
A1a Sc1

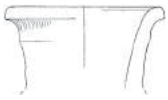
154.
Rd. 46.0 Pht. 15.0
A1a/A1b Sc1/Sc2

NUMBERS 155–167 TRENCH 22 CONTEXT 39 (2 OF 2)

155.
Rd. 14.0–18.0 Bd. 16.0 Ht. 6.5
A1a P1a
Complete profile.

156.
Rd. 16.0 Bd. 14.0 Ht. 5.0
A1a Sc1
Complete profile.

157.
Rd. 8.0 Pht. 4.0
A1a P1a

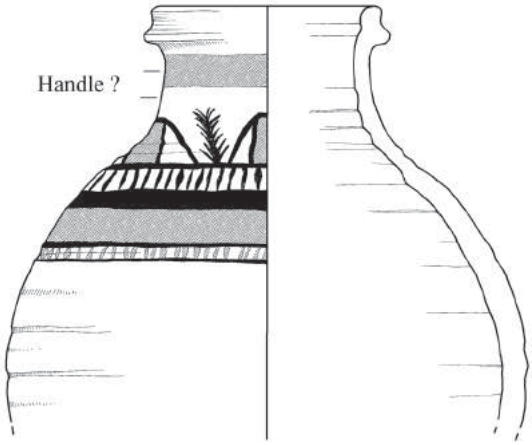


158.
Rd. 9.0 Pht. 4.0
A1b Sc2

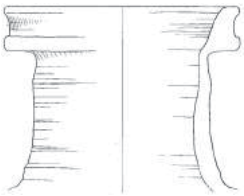
159.
Rd. 8.0 Pht. 4.0
A1a P1a

160.
Rd. 13.0 Pht. 6.5
A1b Dc2
Black bands.

161.
Rd. 12.0 Pht. 5.0
A1a P1a

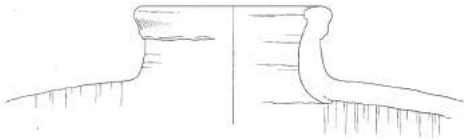


162.
Rd. 12.0 Pht. 23.0 MaxD. 28.0
A1b Dc2
Red and black dec.
Remains of handle stub?

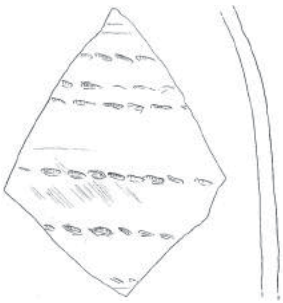


163.
Rd. 12.0 Pht. 9.5
A1a Sc1
Joins piece in (25).

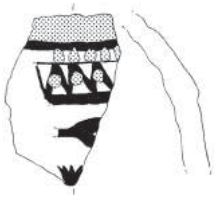
164.
Rd. 7.5 Pht. 7.0
A1a Sc1



165.
Rd. 10.0 Nht. 4.0
A1a P1a



166.
B/S
A2a P2a
Rows of rope impressions.



167.
B/S
A1a Dc1
Black and red dec.
Bes-vessel?
PLATE B.10

NUMBERS 168–179 TRENCH 22 CONTEXT 40 (1 OF 2)

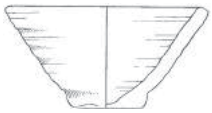
168.
Rd. 24.0
A1a P1a

169.
Rd. 19.0
A1a P1a

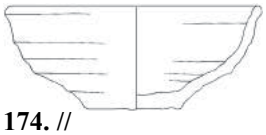
170.
Rd. 16.0
A1a P1a

171. //
Rd. 16.0
B1 P6

172.
Rd. 11.0 Bd. 5.0 Ht. 5.0
A1a P1a
Complete profile.

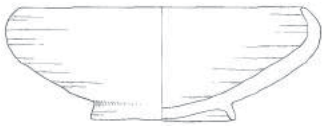


173.
Rd. 10.0 Bd. 4.0 Ht. 5.5
A1a P1a
Complete profile.

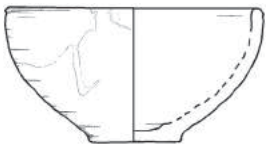


174. //
Rd. 12.0
A1a P1a
Rim pres.

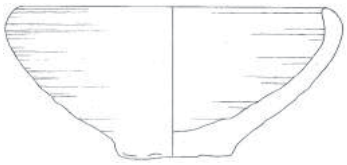
175. //
Rd. 12.0
A1a P1a
Rim pres.



176. (Reg. 22/063)
Rd. 15.5 Bd. 7.5 Ht. 6.0
A1a P1a/Sc1? (ext.)
Blackened int.; complete.



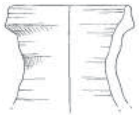
177. //
Rd. 14.0
A1a Sc1
Rim pres.



178.
Rd. 16.0 Bd. 6.0 Ht. 8.0
A1a P1a
Complete profile.

179. //
Rd. 36.0
A1a P1a

NUMBERS 180–191 TRENCH 22 CONTEXT 40 (2 OF 2)

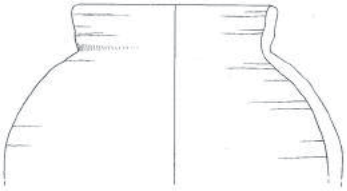


180.
Rd. 6.5
A1a Sc1

181.
Rd. 5.0
A2a P2a

182.
Rd. 12.0 Pht. 6.0
A1a Sr1

183.
Rd. 13.0 Pht.8.0
A1b Dc2?



184.
Rd. 11.0 Pht. 9.0
A1a P1a

185.
Bd. 7.0
A4? P4?
Base or lid?

186.
Rd. 16.0
A5 Sc6

187.
Rd. 10.0 Pht. 5.5
A1b Dc2
Black band.

188.
Rd. 10.0 Pht. 4.0
A1a P1a

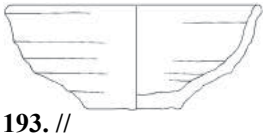
189. //
Rd. 12.0
A1a Sc1

190. //
Rd. 10.0
A1a P1a

191.
Rd. 16.0 Pht. 10.5
B3 P9
Blackened ext.; 1 horizontal handle pres.
PLATE B.11

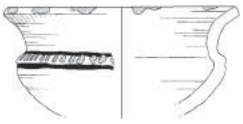
NUMBERS 192–205 TRENCH 22 CONTEXT 49 (1 OF 3)

192.
Rd. 20.0 Bd. 7.0 Ht. 3.5
A1a P1a
Complete profile.

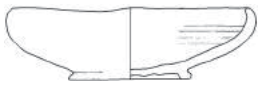


193. //
Rd. 14.0
A1a P1a
Rim pres.

194.
Rd. 18.0
A1a P1a

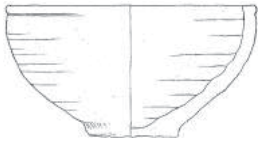


195.
Rd. 12.0 Pht. 5.5
A1b Dc2
Red and black dec.
Piece from (29).
PLATE B.12



196. //
Rd. 14.0 Bd. 6.0 Ht. 5.0
A1a P1a
Complete profile.

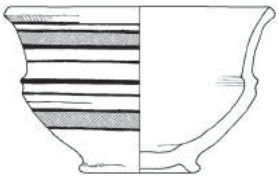
197. //
Rd. 14.0
A1a P1a
Rim pres.



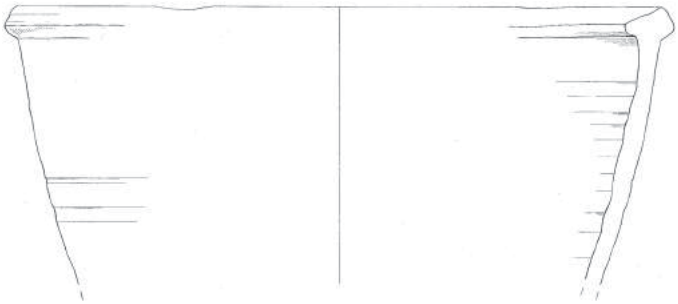
198. //
Rd. 14.0
A1a Sc1
Rim pres.

199.
Rd. 26.0?
A1a P1a

200. //
Rd. 20.0
A1a Sc1

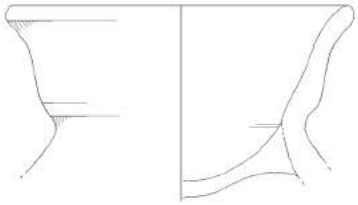


201.
Rd. 14.0 Bd. 6.0
Ht. 8.5
A1a Dc1
Black and red bands.
Piece from (50).
Complete profile.
PLATE B.13



202.
Rd. 34.0 Pht. 15.0
A1a Sc1

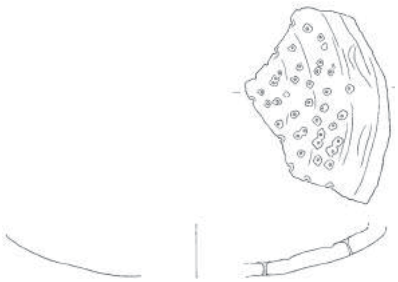
203. (Reg. 22/077)
Rd. 13.7 Bd. 13.0 Ht. 4.6
A1b Sc2
Worn int. rim; complete.
PLATE B.14



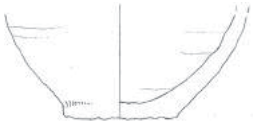
204.
Rd. 15.0 Pht. 10.0
A4 Sc5

205.
Rd. 16.0 Bd. 14.0 Ht. 4.0
A1a Sc1
Complete profile.

NUMBERS 206–213 TRENCH 22 CONTEXT 49 (2 OF 3)



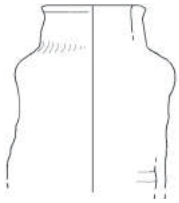
206.
A1a P1a
Strainer fragment.



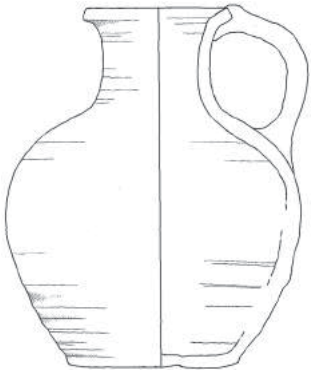
207.
Bd. 5.0 Pht. 6.0
A1a Sc1

208.
Rd. 18.0 Pht. 7.0
B3 P9
Blackened ext.
Stump of horizontal handle.

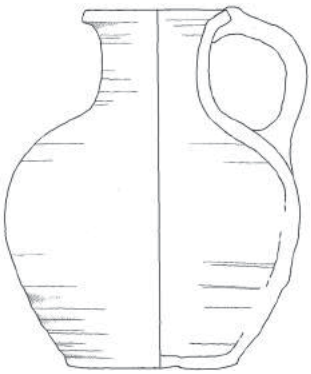
209.
Rd. 18.0 Pht. 10.0
B3 P9
1 horizontal handle pres.



210. //
Rd. 5.0
A1a P1a



211. (Reg. 22/122)
Rd. 8.0 Bd. 9.0 Ht. 19.0
A1a Sc1 (ext.)
Blackened; Near complete.
PLATE B.15



212. //
Rd. 8.0
A1a P1a
Rim-UB-Handle stub.

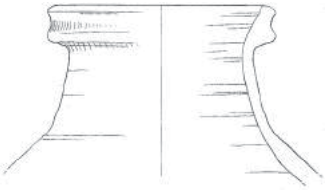
213. (Reg. 22/093)
Bd. 8.2 Pht. 17.7
A28 Sc14 (ext.)
Trace of handle stub.
PLATE B.16

NUMBERS 214–224 TRENCH 22 CONTEXT 49 (3 OF 3)

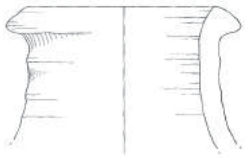
214.
Rd. 11.0 Pht. 5.0
A1a P1a

215.
Rd. 13.0 Pht. 6.5
A5 Sc6

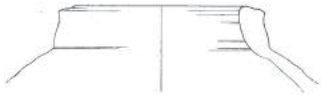
216.
Rd. 14.0 Pht. 8.0
A1a Sc1



217.
Rd. 12.0 Pht. 9.0
A1a Sc1

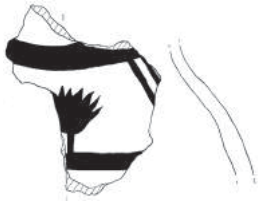


218.
Rd. 12.0 Pht. 7.5
A1a Sc1

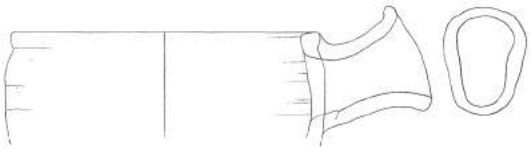


219.
Rd. 10.0 Pht. 4.0
A1a P1a

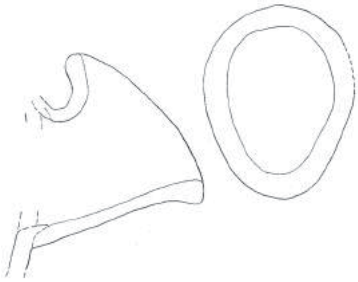
220.
Rd. 12.0 Pht. 18.0
A1b Dc2
Red and black dec. on cream.
PLATE B.17



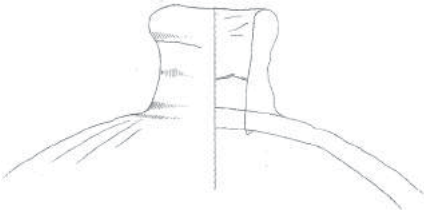
221.
B/S
A1a Dc1
Black and red dec.



222.
Rd. 14.0? Spout 4.0 x 5.5 Pht. 6.0
A1a Sc1



223.
Rd. Unknown
Spout 7.5 x 10.0
A1a P1a



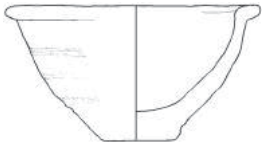
224. //
Rd. 7.0
A1a P1a

NUMBERS 225–243 TRENCH 22 CONTEXT 50 (1 OF 6)

225.
Rd. 22.0 Pht. 5.0
A1a P1a

226.
Rd. 8.0 Bd.4.0
A1b P1b
Blackened ext.
Complete profile.

227.
Rd. 12.0 Pht. 4.0
A2a P2a



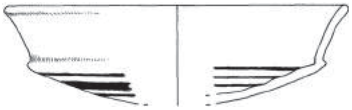
228.
Rd. 13.0 Bd. 4.0 Ht. 7.0
A5 P5
Complete profile.

229.
Rd. 15.0 Bd. 6.0 Ht. 5.0
A1a P1a
Near complete profile.

230.
Rd. 13.5 Bd. 5.0 Ht. 5.2
A1a P1a
Near complete.

231.
Rd. 14.0 Pht. 3.5
A1a P1a

232.
Rd. 10.3 Bd. 5.4 Ht. 3.3
A1a Sr1
Incised groove ext.
Near complete.

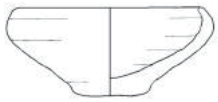


233.
Rd. 18.0 Pht. 5.0
A1a Dc1
Black bands.

234.
Rd. 22.0 Pht. 5.5
A1a Sr1?
Part of horizontal handle.

235.
Rd. 12.0 Bd. 6.0 Ht. 4.5
A5 P5
Complete profile.

236.
Rd. 11.0 Bd. 4.5 Ht. 4.0
A1b P1b
Complete profile.



237.
Rd. 10.0 Bd. 3.5 Ht. 4.5
A1a Sc1
Complete profile.

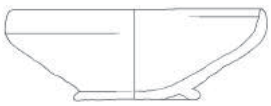
238.
Rd. 13.0 Bd. 5.0 Ht. 4.0
A1a P1a
Near complete profile.

239.
Rd. 16.0?
A1a P1a

240.
Rd. 16.0?
A1a P1a

241.
Rd. 12.5 Bd. 6.5 Ht. 3.5
A1a P1a
Complete.

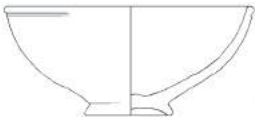
242.
Rd. 14.0 Bd. 7.0 Ht. 4.5
A2a Sr2 (Dark red).
Complete profile.



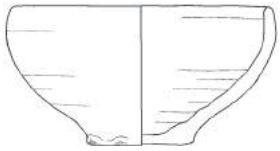
243.
Rd. 13.0 Bd. 6.5 Ht. 5.0
A1a Sr1 (int.)
Complete profile.

NUMBERS 244–255 TRENCH 22 CONTEXT 50 (2 OF 6)

244.
Rd. 11.0
A1a P1a

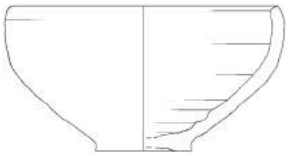


245.
Rd. 13.0 Bd. 4.5 Ht. 5.5
A1a P1a
Soot deposits; complete.



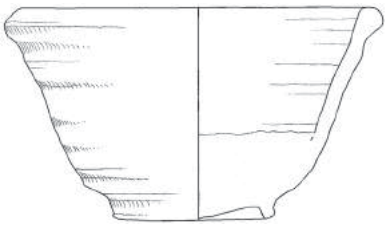
246.
Rd. 14.0 Bd. 5.5 Ht. 7.5
A1a Sm1
Cream int./ext. UB,
Red ext. LB.
Complete profile.

247.
Rd. 13.0 Pht. 7.0
A1a Sc1
Slip darker on ext.

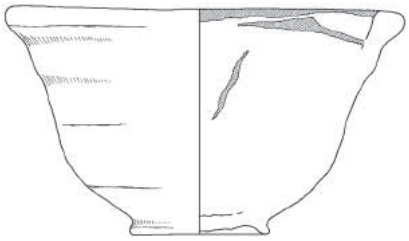


248.
Rd. 14.0 Bd. 5.0 Ht. 7.5
A1a Sc1 (ext.)
Evidence of burning int.
Complete profile.

249.
Rd. 14.0 Pht. 7.0
A1a Sc1

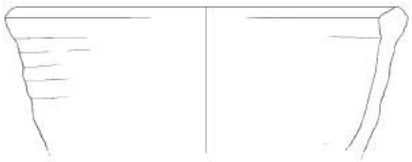


250. (Reg. 22/139)
Rd. 20.0 Bd. 7.0 Ht. 12.0
A1a Sc1
Large hardened deposit int.
Near complete.
PLATE B.18



251. (Reg. 22/119)
Rd. 21.2 Bd. 7.1 Ht. 11.8
A1a Dc1
Complete; red rim.
PLATE B.19

252.
Rd. 19.0 Pht. 10.0
A1a Sc1 (ext.)
Two examples.



253.
Rd. 22.0 Pht. 7.0
A1a Sc1 (ext.)

254.
Rd. 16.0
A1a Sc1 (int.)

255.
Rd. 14.0 Pht. 6.0
A1a Sc1

NUMBERS 256–264 TRENCH 22 CONTEXT 50 (3 OF 6)

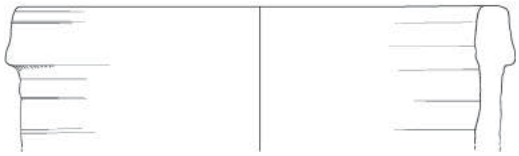
256.
Rd. 22.0 Pht. 4.0
A1b Sc2 (int./ext.?)

257.
Rd. 20.0 Pht. 8.0
A5* Sc6 *Dense.

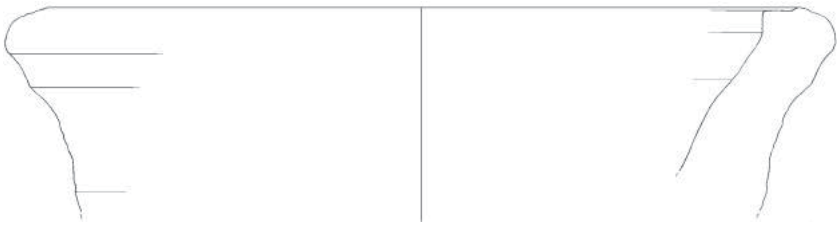
258.
Rd. 24.0 Pht. 5.0
A1a P1a

259.
Rd. 40.0 Pht. 4.0
A1a P1a

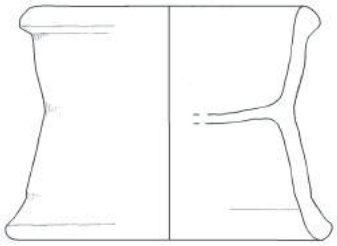
260.
Rd. 36.0 Pht. 5.0
A1a Sc1 (int.)



261.
Rd. 28.0 Pht. 7.5
A1a P1a



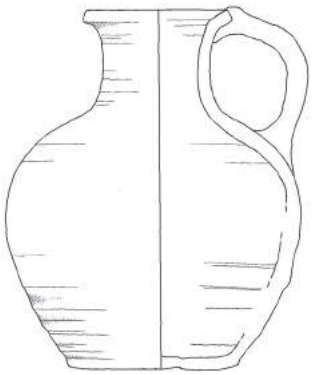
262.
Rd. 44.0 Pht.11.0
A1a Sc1



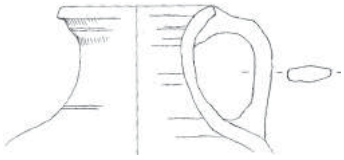
263.
Rd. 16.0 Bd. 17.0 Ht. 12.0
A1a P1a
Near complete profile.

264.
Rd. 19.0 Pht. 6.0
A1a P1a

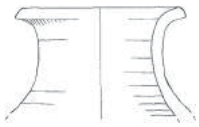
NUMBERS 265–278 TRENCH 22 CONTEXT 50 (4 OF 6)



265. //
Bd. 10.0
A1a P1a
Base-LB pres.



266.
Rd. 7.5 Pht. 7.5
A1a Sc1 (ext.)
1 handle.



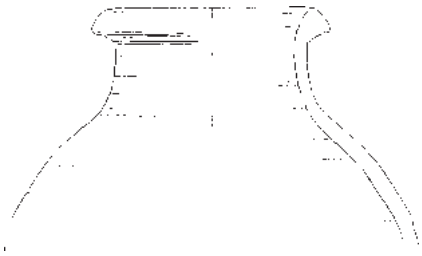
267.
Rd. 8.0 Pht. 6.0
A1a Sc1
(ext./ rim int.)

268.
Rd. 10.0
A1b P1b

269.
Rd. 8.0
A5* P5
*Coarse A5.

270.
Rd. 9.0 Pht. 5.0
A1a Dc1
Red and black dec.

271.
Rd. 10.0
A1a Dc1
Black band on cream.

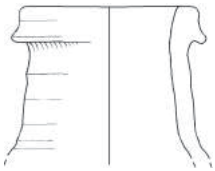


272.
Rd. 12.0 Pht. 12.0
A1a Sc1

273.
Rd. 12.0 Pht. 6.0
A1a Dc1
Black bands.

274.
Rd. 13.0 Pht. 5.5
A1b Sc2

275.
Rd. 15.0 Pht. 6.5
A1a Sc1



276.
Rd. 10.0 Pht. 8.0
A1a Dc1 (ext.)
Red rim and onto int.

277.
Rd. 12.0 Pht. 5.0
A1a P1a

278.
Rd. 12.0 Pht. 5.0
A1a P1a

NUMBERS 279–290 TRENCH 22 CONTEXT 50 (5 OF 6)

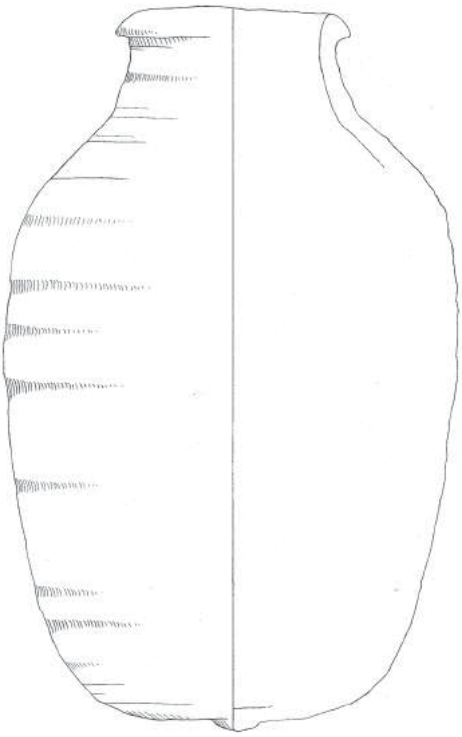
279.
Rd. 10.0
A1a Sc1

280.
Rd. 12.0 Pht. 6.0
A2a Sc3

283.
Rd. 7.0 Pht. 4.0
A1a P1a

281.
Rd. 11.0 Pht. 8.0
Import (Nile Silt A?)
Polished.

284.
Rd. 10.0 Pht. 2.0
A1a P1a



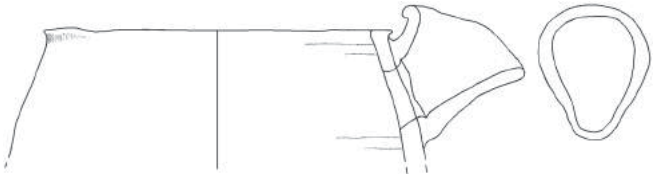
282. (Reg. 22/135)
Rd. 12.0 Ht. 38.5 MaxD. 24.0
A1a Sc1 (ext./ onto int.)
Complete.
PLATE B.20

285.
Rd. 10.0 Pht. 9.5
A1a P1a

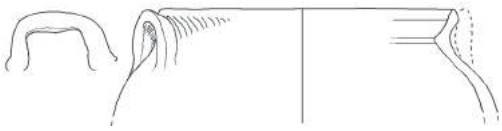
286.
Rd. 18.0 Pht. 4.0
A1a Sr1?

287.
Rd. 18.0
A1a P1a

288.
Rd. 20.0 Pht. 7.0
A5/B3 P5/P9

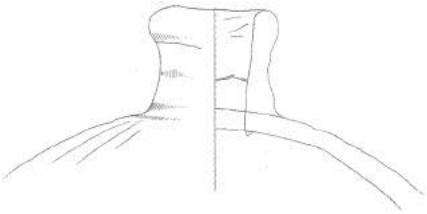


289.
Rd. 20.0? Pht. 7.0 Spout 6.0 x 7.0
A1a Dc1
Dark red spout and int. rim.
PLATE B.21

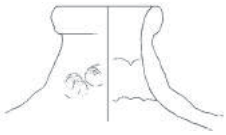


290.
Rd. 17.0 Pht. 6.0
B3 Sc21
1 horizontal handle pres.

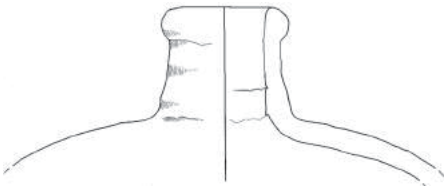
NUMBERS 291–304 TRENCH 22 CONTEXT 50 (6 OF 6)



291.
Rd. 5.0 Nht. 5.5
A1a Sc1
PLATE B.22

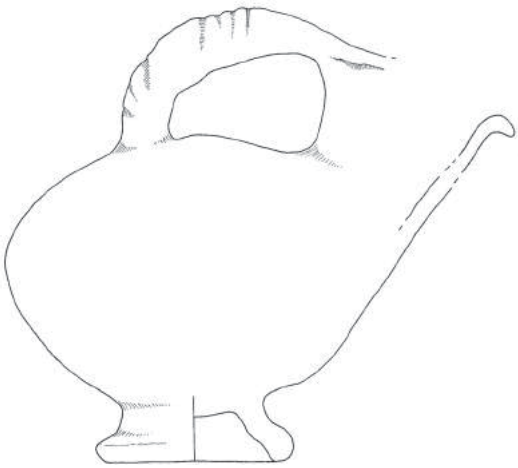


292.
Rd. 7.0 Pht. 6.0
A2a P2a?
Stained black.



293.
Rd. 5.0 Nht. 6.0
A1a Sc1

294.
Rd. 7.0 Nht. 3.0
A31 P41?
Dark grey, gritty slip ext.
PLATE B.23



295. (Reg. 22/120)
Bd. 9.7 Ht. 23.7 Max body Diam. 20.0
Max body Ht. 17.0
A1a Sr1 (ext.)
Lacks neck.
Handle imitates twisted rope.
PLATE B.24

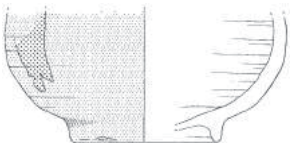
296.
Bd. 3.0
Pht. 4.5
A1b P1b

297.
Bd. 4.0
A1a Sr1 (int.)

298.
Bd. 4.0
A4 P4
Blackened ext.

299.
Bd. 6.0
A1a Sc1 (int.)

300.
Bd. 6.0
A1a P1a



301.
Bd. 8.0 Pht. 6.0
A1b? Dc2
Red dec.

302.
Bd. 8.0 Pht. 4.0
A1a Sc1 (int.)

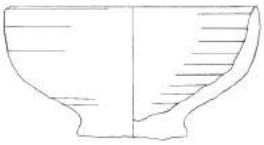
303.
Bd. 5.0 Pht. 5.0
A1a Sc1 (int.)

304.
Bd. 7.0
A1a P1a

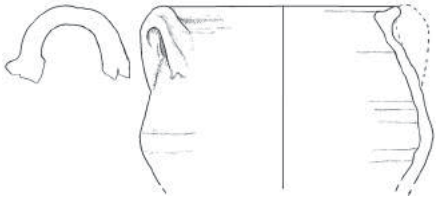
NUMBERS 305–314 TRENCH 22 CONTEXT 52

305. //
Rd. 12.0
A1a P1a
Rim pres.

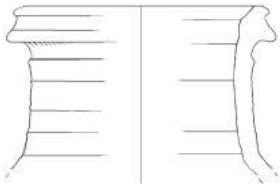
306.
Rd. 35.0 Pht. 7.0
A1a Sc1



307.
Rd. 13.0 Bd. 6.0 Ht. 7.0
A1a Sc1
Complete profile.

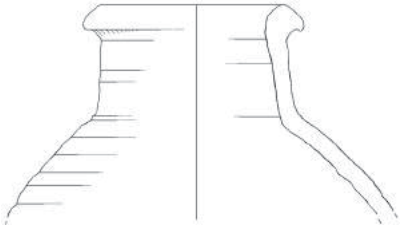


308.
Rd. 12.5 Pht. 10.0
B3 P9
1 horizontal handle pres.

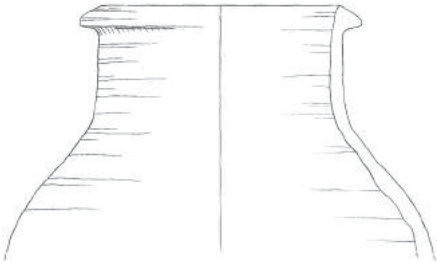


309.
Rd. 13.0 Pht. 9.0
A1a Sc1

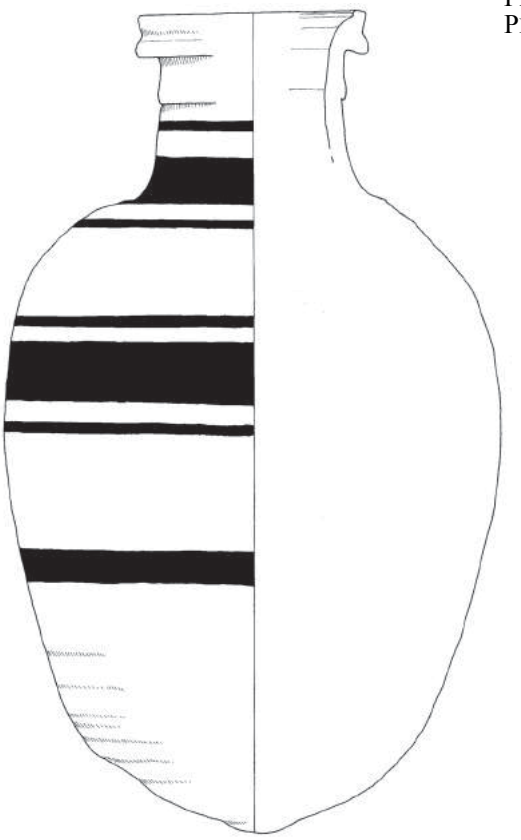
310.
Rd. 3.0
A1a P1a
Piece from (50).
PLATE B.25



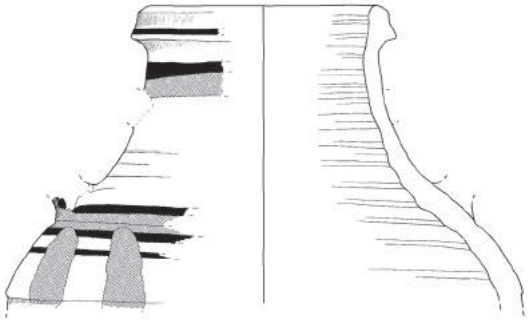
311.
Rd. 10.0 Pht. 11.0
A1a P1a



312.
Rd. 12.0 Pht. 13.0
A1a Sc1



313. (Reg. 22/138)
Rd. 12.0 Ht. 43.0 MaxD. 26.0
A1a/A31 Dc1/Dc9
Near complete; Black bands.
PLATE B.26



314.
Rd. 11.0 Pht. 16.0
A1a Dc1
Red and black dec.; handle stubs on shoulder and neck.
PLATE B.27

NUMBERS 315–329 TRENCH 22 CONTEXT 53 (1 OF 3)

315. //
Rd. 20.0
A1a P1a

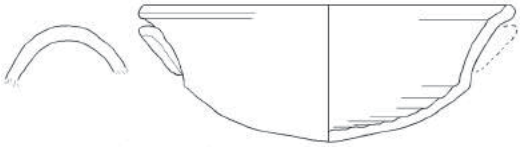
316. //
Rd. 12.0
A1a P1a
Rim pres.

317.
Rd. 13.0 Bd. 6.0 Ht. 4.5
A1a Sr1
Near complete; Post-firing hole in base c.1.4 diam.

318.
Rd. 18.0 Pht. 4.0
A1a Sc1

319.
Rd. 15.0 Pht. 4.5
A1a P1a

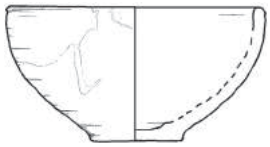
320. //
Rd. 12.0
A1a P1a
Rim pres.



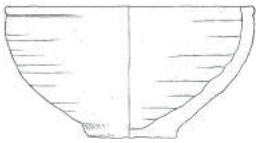
321.
Rd. 20.0 Ht. 7.0
A1a Sr1
Complete profile; 1 handle pres.

322.
Rd. 12.0 Bd. 6.0 Ht. 4.0
A1a P1a
Near complete profile.

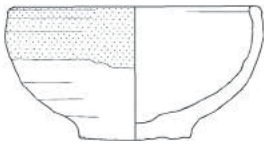
323. //
Rd. 14.0
A1a P1a
Rim pres.



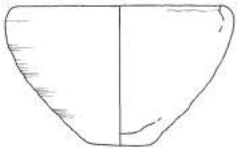
324. //
Rd. 14.0
A1a Sc1
Rim pres.



325. //
Rd. 12.0
A1a Sc1
Rim pres.; blackened ext.



326.
Rd. 13.0 Bd. 6.0 Ht. 7.0
A1a Sc1 (int./ext. UB)
Soot blackened ext.
Near complete.



327. (Reg. 22/121)
Rd. 10.5 Bd.3.7 Ht. 6.8
A28 Sc14
Complete; Very eroded.
PLATE B.28

328.
Rd. 12.0 Pht. 5.0
A1a Sc1

329.
Rd. 18.0 Pht. 5.5
A1a P1a
Blackened ext.

NUMBERS 330–336 TRENCH 22 CONTEXT 53 (2 OF 3)

330. //
Rd. 20.0
A1a Sc1

331.
Rd. 16.0 Pht. 9.0
A1a P1a
Soot patches int.

332.
Rd. 28.0 Pht. 4.5
A2a Sc3

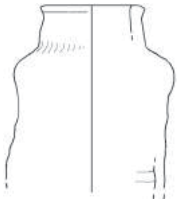
333.
Rd. 32.0 Pht. 4.5
A1b Sc2

334.
Rd. 34.0 Pht. 3.0
A1a Dp1?
Red rim?

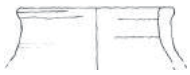
335. //
Rd. 32.0?
A1a P1a

336.
Rd. 28.0 Pht. 6.0
A1a Sc1

NUMBERS 337–348 TRENCH 22 CONTEXT 53 (3 OF 3)

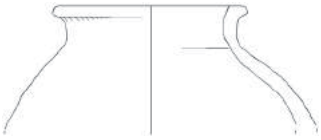


337.
Rd. 4.5
Pht. 10.0
A1a Sc1
PLATE B.29



338.
Rd. 8.0
Pht. 3.0
A1a P1a

339.
Rd. 10.0 Pht. 3.5
A1a P1a
2 examples.



340.
Rd. 10.0 Pht. 6.0
A5 P5

341.
Rd. 4.0
A1a P1a

342.
Rd. 9.0 Pht. 4.5
A2b Sc4

343.
Rd. 4.0?
A1a P1a?
Blackened ext.

344.
Rd. 8.0
Import (Nile Silt)
Uncoated.
Fine, dense, dark brown, mica, organic inclusions.

345.
Rd. 14.0 Pht. 7.5
A1a Sc1

346.
Rd. 8.0
A1a Sc1

347.
Bd. 6.0
A1a Sr1

348.
Rd. 14.0 Bd. 16.0 Ht.5.0
A1a P1a
Complete profile.

NUMBERS 349–365 TRENCH 22 CONTEXT 54

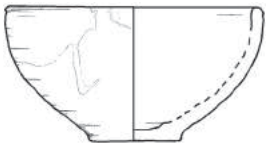
349. (Reg. 22/101)
Rd. 9.0 Bd. 4.1
Ht. 2.5
Complete.
A31 P41
PLATE B.30

350.
Rd. 12.0 Bd. 4.5 Ht. 4.0
A2a P2a
Near complete.

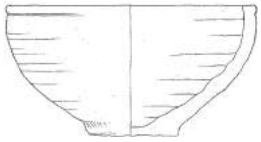
351.
Rd. 12.0 Pht. 3.5
A1a Sc1
Blackened rim.

352. //
Rd. 12.0
A1a P1a
Rim pres.

353. //
Rd. 14.0?
A1a P1a
Rim pres.



354. //
Rd. 12.0
A1a Sc1
Rim pres.



355. //
Rd. 13.0
A1a Sc1
Rim pres.; Blackened ext.

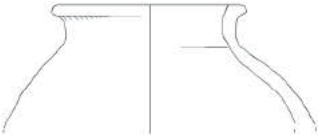
356. //
Rd. 20.0
A1a P1a

357. //
Rd. 21.0
A1a Sc1

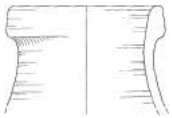
358. //
Rd. 20.0
A1a Sc1

359. //
Rd. 14.0
B3 P9
Blackened ext.; 1 handle pres.

360.
Rd. 8.0 Pht. 4.5
A1b Sc2



361. //
Rd. 10.0
B3 P9
Blackened ext.



362.
Rd. 8.0
Pht. 5.5
A1a Sc1

363.
Rd. 12.0 Pht. 6.0
A1a P1a

364.
Rd. 16.0 Pht. 7.5
A1a P1a

365. //
Rd. 10.0
B3 P9

NUMBERS 366–384 TRENCH 22 CONTEXT 58 (1 OF 3)

366.
Rd. 20.0 Bd. 6.0 Ht. 3.5
A1a Sc1
Complete profile.

367.
Rd. 20.0 Pht. 3.0
A1a* Sr1?
*Black via reduction.

368.
Rd. 26.0 Bd. 10.0 Ht. 4.0
A1a Sr1
Complete profile.

369.
Rd. 12.0 Bd. 7.0
Ht. 3.5
A1a Sr1
Complete profile.

370. (Reg. 22/127)
Rd. 13.0 Bd. 5.0 Ht. 4.0
A1a P1a
Complete.
Blackened int.

371. //
Rd. 14.0
A1a P1a
Rim pres.

372.
Rd. 18.0 Pht. 3.0
A1a Srb1

373. (Reg. 22/131)
Rd. 11.6 Bd. 5.0 Ht. 4.0
A1a P1a
Complete.

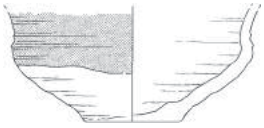
374. //
Rd. 14.0 Bd. 6.0 Ht. 5.5
A1a P1a
Complete profile.

375. (Reg. 22/133)
Rd. 11.0 Bd. 4.0 Ht. 4.0
A1a P1a
Complete; 2 examples.
PLATE B.31

376. //
Rd.18.0
A1a P1a
Part of 1 handle.

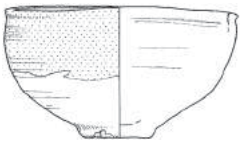
377.
Rd. 12.0 Pht. 3.5
A1a Sc1 (int.)

378.
Rd. 14.0 Pht. 5.0
A1a Dc1
Black bands.

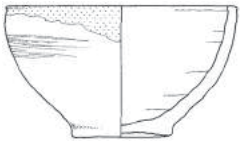


379.
Bd. 5.0 Pht. 6.0
A1a Dc1
Red dec.

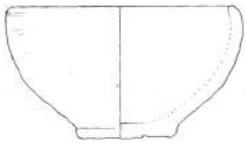
380.
Rd. 18.0 Pht. 4.5
A1a Sc1



381. (Reg. 22/130)
Rd. 11.2–12.9 Bd. 3.0
Ht. 7.0
A1a Sc1 (int./ext. UB)
Complete.



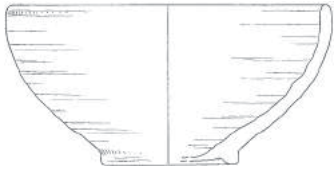
382. (Reg. 22/129)
Rd. 11.8 Bd. 5.0 Ht. 7.0
A1a Sc1
3/4 pres.



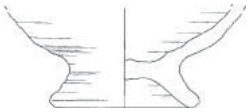
383. //
Rd. 13.0 Bd. 5.0
Ht. 7.0
A1a Sc1 (int.)
Blackened ext.
Complete profile.

384. (Reg. 22/128)
Rd. 12.0 Bd. 5.0 Ht. 7.0
A1a P1a
Complete; Dark stain int.
PLATE B.32

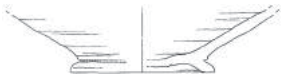
NUMBERS 385–392 TRENCH 22 CONTEXT 58 (2 OF 3)



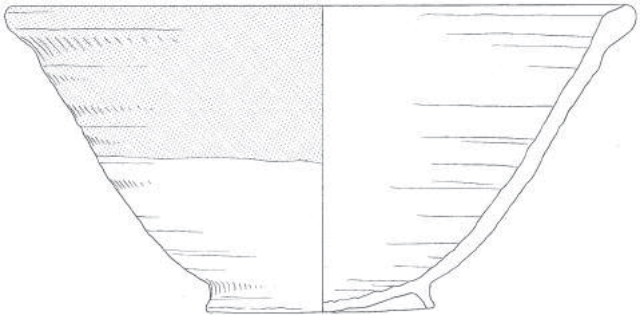
385.
Rd. 17.0 Bd. 7.0 Ht. 7.5
A1a Sm1
Cream int., red ext.
Near complete profile.



386.
Bd. 8.0 Pht. 5.0
A1a Sm1
Red ext., cream int.

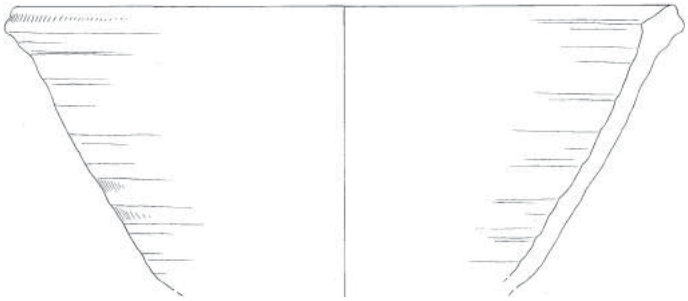


387.
Bd. 8.0 Pht. 7.0
A1a Sm1
Red slip int./ext.,
Cream slip ext. ring-base.



388.
Rd. 33.0 Bd. 12.0 Ht. 15.0
A1a Sc1 (int./ext. UB)
Complete profile.

389.
Rd. 30.0 Pht. 9.0
A1a Dc1
Red rim.



390.
Rd. 36.0 Pht. 15.0
A1a P1a

391.
Rd. 36.0 Pht. 9.0
A1a Dc1
Red rim.

392.
Rd. 48.0 Pht. 8.0
A1a Sc1

NUMBERS 393–409 TRENCH 22 CONTEXT 58 (3 OF 3)

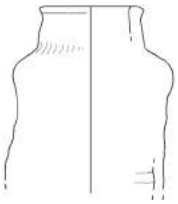
393. //
Rd. 19.0
A1a Dc1
Faint red rim.

394.
Rd. 20.0 Pht. 8.0
A1a Sc1

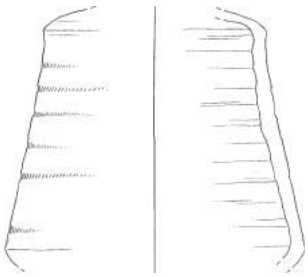
395.
Rd. 30.0 Pht. 8.0
A1a Sc1

396. //
Rd. 28.0
A1a Sc1

397.
Rd. 2.0
A1a Dr3
Black rim.



398. //
Rd. 4.0
A1a Sc1

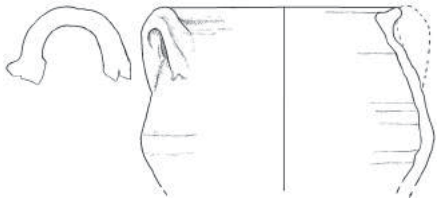


399.
Max.D. 16.0 Pht. 14.0
A1a Sr1

406.
Rd. 20.0 Pht. 7.0
B3 Srp5
Smoke blackened ext.

400. //
Rd. 12.0
A1a P1a

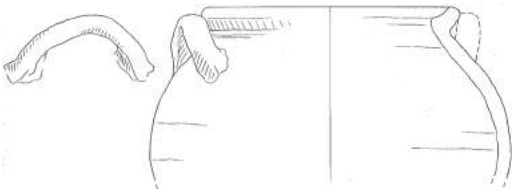
401.
Rd. 14.0 Pht. 5.0
A1a Dc1
Red rim.



407. //
Rd. 14.0
B3 P9?
Heavily burnt; remains of 1 handle.

402.
Rd. 14.0 Pht. 6.0
A1b Sc2

403.
Rd. 16.0 Pht. 5.0
A1a Dc1
Red rim.



408.
Rd. 14.0 Pht. 9.0
B3* P9? *Dark grey core.
Blackened ext.; 1 horizontal handle pres.
PLATE B.33

404. //
Rd. 13.0
A1b Sc2

405. //
Rd. 12.0
A1a P1a

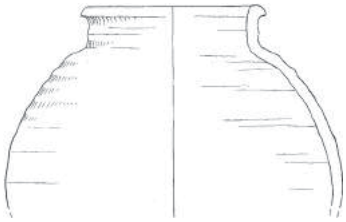
409.
Rd. 14.0 Bd. 12.0 Ht. 5.0
A1a P1a
Complete profile.

NUMBERS 410–420 TRENCH 28 CONTEXT 21

410.
Rd. 10.0
A1a P1a

411.
Rd. 10.0
A1a P1a

412.
Rd. 10.0 Pht. 3.5
A1a Sr1



413. //
Rd. 9.0
B3 P9

414.
Rd. 18.0 Pht. 4.0
A1a P1a

416. //
Rd. 8.0
A1a P1a

415. //
Rd. Unknown
A1a P1a

417.
Rd. 18.0
A1a Sc1

418.
Rd. 7.0 Pht. 4.5
B3 P9
Oily coating ext.

419.
Rd. 10.0
A2a Sc3

420.
Rd. 14.0 PHt. 3.5
A1a Sc1

NUMBERS 421–429 TRENCH 28 CONTEXT 24

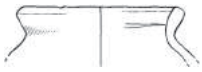
421.
Rd. 8.0 Bd. 4.0 Ht. 2.0
B15 P25
Complete profile.

422.
Rd. 9.0 Pht. 2.5
A5 Sc6

423.
Rd. 10.0 Pht. 4.0
A32 P42

424.
Rd. 12.0 Pht. 4.0
A1a P1a

425.
Rd. 10.0 Pht. 5.5
A1a Sr1



426. //
Rd. 8.0
A1a P1a

427.
Rd. 18.0 Pht. 3.5
A1a Dp1
Black bands.

428.
Rd. 12.0
A29 Pb3

429.
Rd. 14.0 Pht. 5.5
A1b Sc2

NUMBERS 430–440 TRENCH 28 CONTEXT 25

430. (Reg. 28/046)
Rd. 9.2 Bd. 4.0
Ht. 2.7
A28 P37
Complete.

431.
Rd. 13.0
A1a P1a

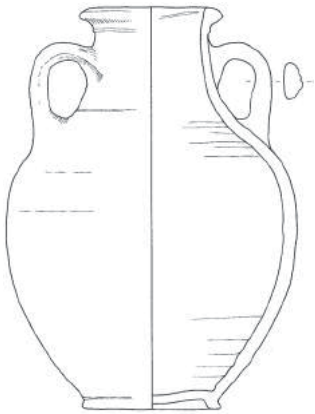
432.
Rd. 14.0
B15 P25

433.
Rd. 14.0 Pht. 6.0
A1a Sr1 (int.)

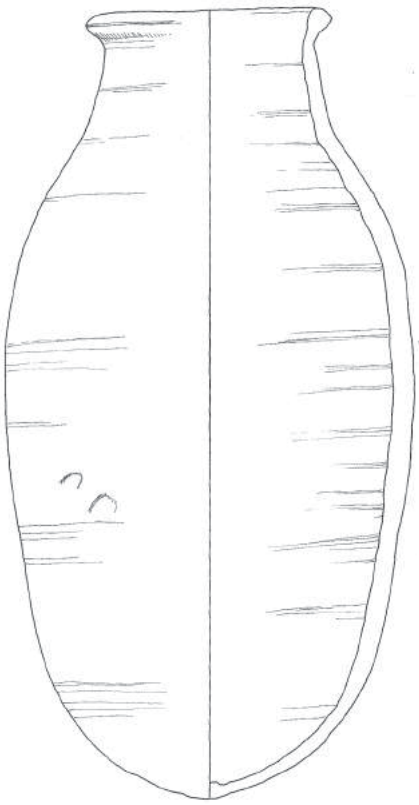
434
Rd. 18.0 4.0
A1a Sc1

435.
Rd. 8.0 Pht. 3.0
A1a P1a

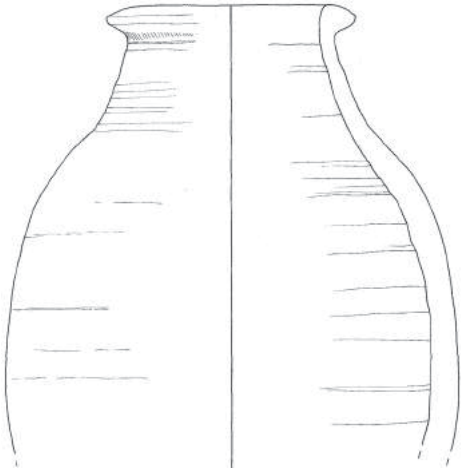
436. (Reg. 28/041)
Rd. 6.3 Bd. 7.5 Ht. 22.1
A31 Dc9 (rim/ext.)
Faint black dec. on cream; applied, modelled and incised dec.
Complete.



437. (Reg. 28/044)
Rd. 7.4 Bd. 7.0 Ht. 21.0
A2a Sc4 (rim/ext.)
Near complete.
PLATE B.34



438. (Reg. 28/042)
Rd. 10.8 Ht. 42.0 MaxD. 22.0
A5 Sr12 (Plum red slip)
Complete.
PLATE B.35



439. (Reg. 28/043)
Rd. 11.0 Pht. 24.0 MaxD. 24.0
A5 Sr12 (rim/ext.; Plum red slip)

440. (Reg. 28/045)
Rd. 15.5 Bd. 14.8 Ht. 6.3
A1a Sc1
Near complete; Worn inside rim from use.

NUMBERS 441–458 TRENCH 28 CONTEXT 34

441.
Rd. 12.0
A1a P1a

442.
Rd. 10.0
A1a P1a

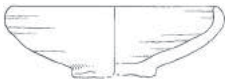
443. //
Rd. Unknown
B1 P6

444.
Rd. 14.0
A1a P1a

445.
Bd. 5.0
A1a P1a

446.
Bd. 7.5
A1a P1a

447.
Rd. 12.0 Pht. 3.0
A1a Sr1



448.
Rd. 11.0 Bd. 5.0 Ht. 3.5
A1a P1a
Complete profile.

449.
Rd. 32.0
A1a Sc1

450.
Rd. 12.0 Pht. 3.0
B15 P25

451.
Rd. 12.0 Pht. 4.0
A1a P1a
Ring stand?

452.
Rd. 8.0 Pht. 3.0
B3 P9
Some blackening.

453.
Rd. 8.0 Pht. 4.5
A1a Sc1

454.
Rd. 8.0 Pht. 3.0
A2a Sc3

455.
Rd. 10.0 Pht. 3.5
A2a Sc3

456.
Rd. 14.0
A1b Sc2

457.
Rd. 12.0 Pht. 3.0
A1a Sc1

458.
MaxD. 14.0 Pht. 5.0
A1a Dr1
Black bands; 1 handle pres.
Piece from (27).

NUMBERS 459–479 TRENCH 28 CONTEXT 37

459.
Rd. 14.0 Pht. 2.5
A1a P1a

460. //
Rd. 14.0
A1a P1a

461.
Rd. 10.0 Pht. 2.5
A1a Dc1
Red rim

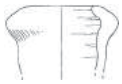
462.
Rd. 12.0 Pht. 3.0
A1b Dc2
Black bands

463.
Rd. 5.0 Bd. 2.0
Ht. 2.5
B15 Sr18
Near complete.

464.
Rd. 11.0 Pht. 4.0
A1a Sc1

465.
Rd. 12.0 Pht. 3.0
A1a Sc1

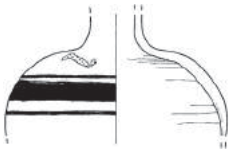
466. //
Bd. 12.0
A4 P4



468.
Rd. 6.0
Pht. 3.5
A1a P1a

469.
Bd. 4.0
Pht. 3.5
B15 P25

470.
Bd. 4.5 Pht. 4.0
A1a P1a/Sc1 (int.)



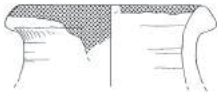
467.
Min.D. 2.0 Pht. 7.0
Max. D. 10.5
A1a Dp1
Black bands; red spot.

471. //
Rd. 10.0
A1a P1a

472.
Rd. 8.0 Pht. 3.0
A29 P38/Pb3

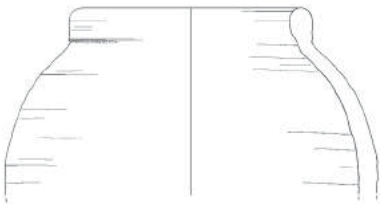
473.
Rd. 10.0 Pht. 2.5
A1b P1b/Sc2?

474.
Rd. 9.0
A1b P1b

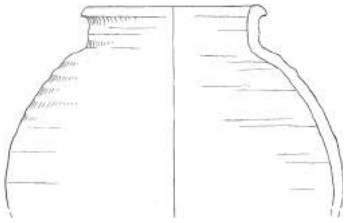


475.
Rd. 9.0 Pht. 4.0
A1a Dc1
Red rim on cream

476.
Rd. 12.0 Pht. 4.5
A1a P1a



477. //
Rd. 10.0
A1a P1a



478.
Rd. 10.0 Pht. 11.0 MaxD. 17.5
B3 P9
PLATE B.36

479.
Rd. 18.0 Pht. 4.0
A1a P1a

NUMBERS 480–488 TRENCH 28 CONTEXT 41

480. //
Rd. 9.0
A1a P1a
Rim pres.

481. //
Rd. 14.0
A1a P1a

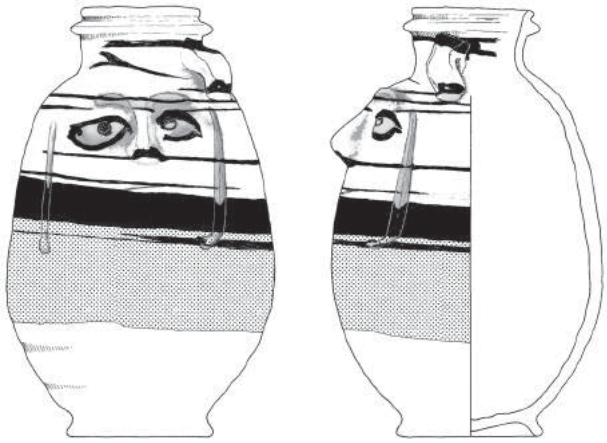
482.
Rd. 12.0?
B15 P25

483. //
Rd. 10.0
A1b Sc2

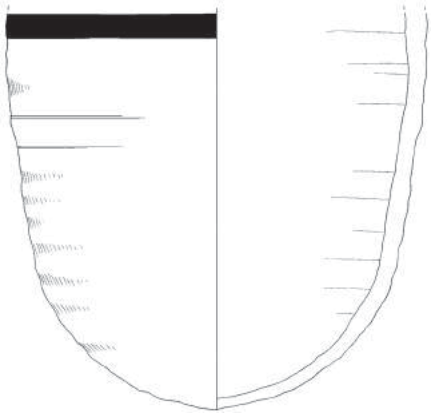
484.
Rd. 10.0 Pht. 3.0
A1b Sc2

485. //
Rd. 18.0
B15 P25

486.
Rd. 20.0 Pht. 3.5
A1a Sc1



487. (Reg. 28/055)
Rd. 6.3 Bd. 7.5 Ht. 22.1
A31 Dc9 (rim/ext.)
Black and red dec. on cream;
modelled and incised dec; 1 handle.
Near complete.
PLATE B.37



488.
MaxD. 22.0 Pht. 21.0
A1b Dc2 (ext.)
Black band on cream slip.

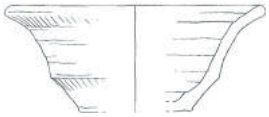
NUMBERS 489–506 TRENCH 31 CONTEXT 19 (1 OF 3)

489. //
Rd. 10.0 Bd. 4.0
Ht. 2.0
A1a P1a
Complete profile.

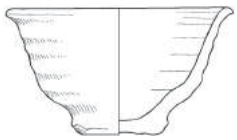
490.
Rd. 10.0
Pht. 2.0
A32 P42

491.
Rd. 14.0 Pht. 3.5
A1a* P1a
*Low fired.

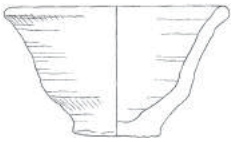
492. //
Rd. 18.0
A1a P1a



493.
Rd. 12.0 Bd. 4.0? Ht. 5.0
A1a Sc1
Blackened; complete profile.

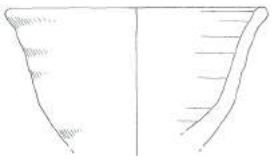


494. //
Bd. 4.0
A1a P1a
Base pres.



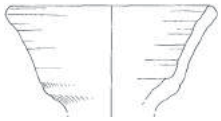
495.
Rd. 12.0 Bd. 4.5 Ht. 6.0
A1a Sc1
Complete profile.

496. //
Rd. 12.0
A1a P1a
Rim pres.

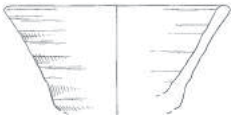


497. //
Rd. 14.0
A1a Sc1
Rim pres.

498. //
Rd. 12.0
A1a P1a



499.
Rd. 11.0 Pht. 5.5
A1a P1a



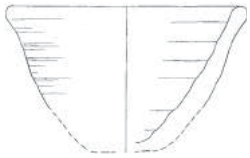
500.
Rd. 12.0 Pht. 5.5
A1a P1a

501. //
Rd. 11.0
A1a Sc1

502.
Rd. 16.0 Pht. 3.0
A5 P5

503.
Rd. 12.0 Pht. 5.0
A1a P1a

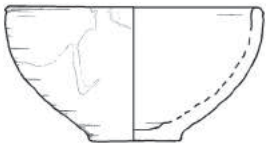
504.
Rd. 12.0 Pht. 4.0
A1a Sc1



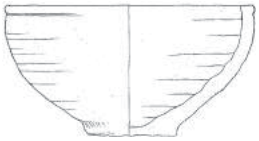
505.
Rd. 14.0 Pht. 8.0
A31 P41
Base eroded.

506.
Rd. 12.0 Pht. 3.5
Import (Nile Silt B2)
Uncoated.

NUMBERS 507–519 TRENCH 31 CONTEXT 19 (2 OF 3)



507. //
Rd. 12.0
A1a Sc1
Rim pres.



508. //
Rd. 10.0
A1a Sc1
Rim pres.

509.
Rd. 12.0 Pht. 3.0
A31 Sr20

510.
Rd. 14.0 Pht. 4.0
A1a P1a

511.
Rd. 14.0 Pht. 6.0
A1a/A2a Sr1/Sr2
Blackened int.

512.
Rd. Unknown Pht. 4.0
A1a P1a

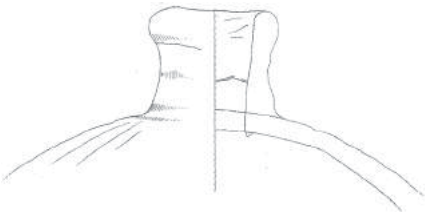
513. //
Rd. 20.0
A1a Sc1

514.
Rd. 18.0 Pht. 6.5
A1a Sc1

515.
Rd. 18.0 Pht. 4.5
A1a Sc1

516.
Rd. 18.0 Pht. 3.0
A1a Sc1

517.
Rd. 12.0 Pht. 3.0
A1a Sc1



518. //
Rd. 8.0
A1a Sc1

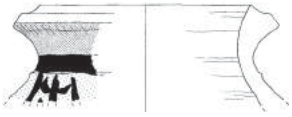
519.
Rd. 12.0 Pht. 3.0
B3 P9/Sr8?
Red rim int., eroded ext.
Possible red slip.

NUMBERS 520–532 TRENCH 31 CONTEXT 19 (3 OF 3)

520.
Rd. 8.0 Pht. 3.0
A1b Sc2

521.
Rd. 7.0 Pht. 3.0
A2a Sc3

522.
Rd. 14.0
A1a Sc1



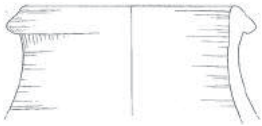
523.
Rd. 12.0 Pht. 5.0
A1a Dm1
Black dec., red rim and cream slip.

524.
Rd. 12.0 Pht. 3.0
A1b Sc2

525. //
Rd. 11.0
A1a Sc1

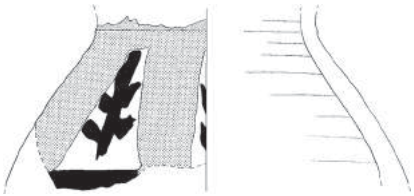
526.
Rd. 10.0 Pht. 3.0
A2b Sc4

527.
Rd. 14.0 Pht. 6.0
A1b Sc2

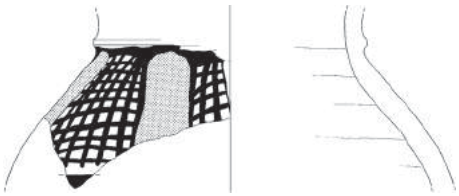


528. //
Rd. 11.0
A1a Sc1

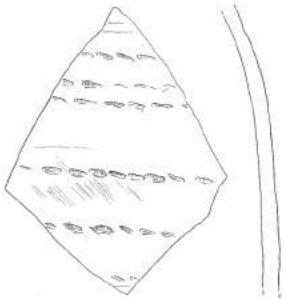
529.
Rd. 10.0 Pht. 4.0
A1a Sr1?
Red rim.



530.
B/S MinD. 12.0
A1a Dc1
Black and red dec.
PLATE B.38



531.
B/S MinD. 14.0
A1a Dc1
Black and red dec.
PLATE B.39



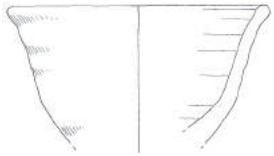
532. //
B/S
A2a P2a
Rope impression.

NUMBERS 533–553 TRENCH 31 CONTEXT 28

533.
Rd. 12.0
B1 P6

534.
Rd. 12.0 Pht. 3.0
A1a Sc1

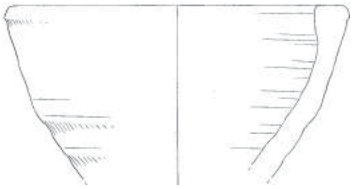
535.
Rd. 12.0 Pht. 5.0
A1a Sc1



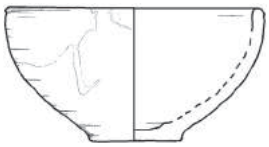
536.
Rd. 14.0 Pht. 7.0
A1a Sc1

537.
Rd. 14.0
B1* P6 *Overfired.

538. //
Bd. 2.0
B15 Sr18
Base pres.



539.
Rd. 18.0 Pht. 9.0
A1a/A4 Sc1/Sc5



540. //
Rd. 12.0
A1a Sc1
Rim pres.

541.
Rd. 18.0
A1a P1a

542.
Rd. 8.0
Pht. 2.5
A1a Sc1

543.
Rd. 12.0 Pht. 2.0
A1a P1a

544.
Rd. 12.0 Pht. 4.0
A1a P1a

545.
Rd. 18.0 Pht. 5.0
A1a Sc1

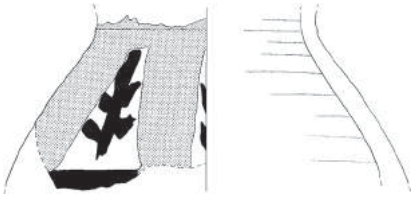
546.
Rd. 12.0 Pht. 5.0
A1b Sc2

547.
Rd. Unknown
Sp.D. 2.0
A1b Sc2

548.
Rd. 12.0 Pht. 3.0
A1a Sr1

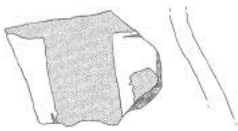
549.
Rd. 12.0 Pht. 5.0
A1a Sc1

550.
Rd. 20.0
B15 P25



551. //
B/S
A1a/A1b Dc1/Dc2
Red panels and bands; black design?

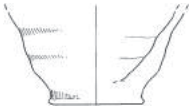
552.
B/S
A1a Dm1
Black dec. on red and cream slip.



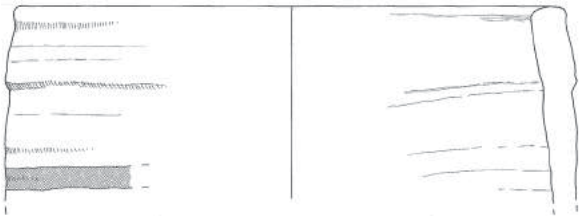
553.
B/S
A1a Dc1
Red dec.

NUMBERS 554–556 TRENCH 18 CONTEXT 7

554.
Rd. 10.0 Pht. 4.0
A28 Sc14
Demotic ostrakon.



555. (Reg. 18/014)
Bd. 5.0 Pht. 5.0
A31 P41
Demotic ostrakon.



556. (Reg. 18/015)
Rd. 30.0 Pht. 10.0
A31 Dp19
Red band.
Demotic ostrakon.

NUMBERS 557–560 TRENCH 18 CONTEXT 15

557. (Reg. 18/020)
Rd. 14.0 Pht. 4.0
A31 P41
Demotic ostrakon.

558. (Reg. 18/021)
Rd. 21.0 Pht. 8.0
A31 P41
Demotic ostrakon.

559. (Reg. 18/044)
Rd. 12.0 Pht. 7.0
A1a P1a
Demotic ostrakon.

560. (Reg. 18/022)
Rd. 12.0 Pht. 5.0
A2a Sc3
Demotic ostrakon.

NUMBERS 561–562 TRENCH 18 CONTEXT 17

561.
Rd. 21.0 Pht. 2.0
A28 P37
Demotic ostrakon (Reg. 18/100).

562.
Rd. 26.0 Pht. 6.0
A28 P37
Demotic ostrakon (Reg. 18/066).

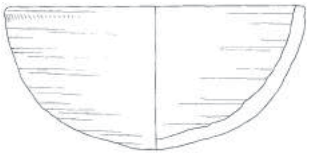
NUMBERS 563–564 TRENCH 18 CONTEXT 20

563.
Rd. 13.0 Bd. 7.0 Ht. 6.0
A31 P41
Demotic ostrakon.
Complete profile

564.
Rd. 14.0 Pht. 7.0
A1a Sc1

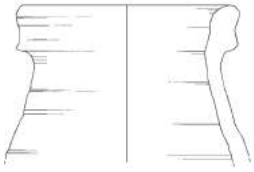
NUMBERS 565–566 TRENCH 18 CONTEXT 22

565.
Rd. 34.0 Bd. 12.0 Ht. 7.0
A1a P1a
Complete profile.



566.
Rd. 16.0 Ht. 7.5
A1a P1a
Complete profile.

NUMBER 567 TRENCH 18 CONTEXT 29



567.
Rd. 12.0 Pht. 8.0
A1a Sc1

NUMBERS 568–589 TRENCH 15 CONTEXT 18 (1 OF 2)

568. //
Rd. 9.0 Bd. 4.0
Ht. 2.0
A1a P1a
Some rim blackening.

569.
Rd. 8.0 Bd. 4.5
Ht. 1.5
A31 P41
Complete profile.

570.
Rd. 16.0 Pht. 4.0
B15 P25

571.
Rd. 22.0 Pht. 4.0
B15 P25

572.
Rd. 11.0 Pht. 4.5
A1a P1a

573.
Rd. 12.0 Bd. 5.0
Ht. 5.0
A1a Sc1
Complete profile.

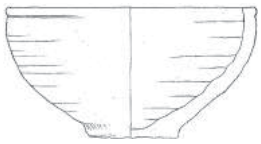
574.
Rd. 20.0 Pht. 2.0
B15 P25

575.
Rd. 20.0 Pht. 5.0
A1a P1a

576.
Rd. 22.0 Pht. 4.0
A31 Sc18

577.
Rd. 20.0 Pht. 7.5
A1a P1a

578.
Rd. 14.0 Pht. 5.0
A1a Sc1



579. //
Rd. 13.0
A1a Sc1
Rim pres.

580.
Rd. 18.0 Pht. 8.0
A1a/A2a P1a/P2a

581.
Rd. 20.0 Pht. 3.5
A1a P1a

582.
Rd.25.0 Bd. 24.0 Ht. 4.5
A4 Sc5
Part profile.

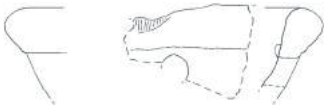
583.
Rd. 12.0 Bd. 6.0 Ht. 5.0
A4 Sc5

584.
Rd. 24.0 Pht. 8.0
A2a Sc3

585.
Pht. 4.0 Pht. 4.0
A1a P1a

586.
Rd. 16.0 Pht. 4.0
A1a Sc1

587.
Rd. 30.0? Bd. 24.0? Ht. 10.0?
A4 P4
Part profile.

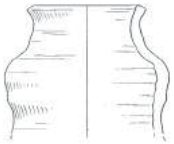


588.
Rd. 24.0 Pht. 4.5
A2a Sc3
Perforation in wall. Perhaps a strainer.

589.
Rd. 15.0 Bd. 16.0 Ht. 5.0
A1b Sc2
Complete profile.

NUMBERS 590–613 TRENCH 15 CONTEXT 18 (2 OF 2)

590.
Rd. 4.0 Pht. 3.0
A1a Sr1



591.
Rd. 5.0 Pht. 7.0
A1a Sc1

592.
Rd. 8.0 Pht. 4.0
A1a Dc1
Black and red bands on a cream slip.

593.
Rd. 10.0 Pht. 4.0
A2b Sc4

594.
Rd. 10.0 Pht. 4.0
A1b P1b/Sc2?

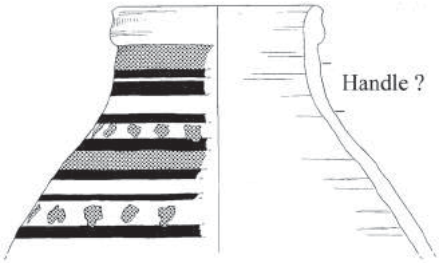
595.
Rd. 4.0
Pht. 3.0
A1a P1a

596.
Rd. 10.0
Pht. 2.5
A1b P1b

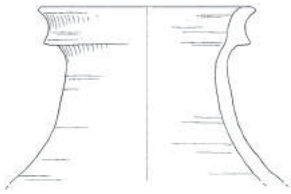
597.
Rd. 10.0
B10 P21

598.
Rd. 10.0
Pht. 3.0
A1a Sc1

599. //
Rd. 10.0
A2a P2a



601.
Rd. 11.0 Pht. 5.5
A1b Sc2



602.
Rd. 11.0 Pht. 9.0
A1a Sc1

603.
Rd. 10.0 Pht. 3.5
A1a P1a

604.
Rd. 12.0 Pht. 2.5
A1a P1a

600.
Rd. 11.0 Pht. 13.0
A1b Dc2
Red and black dec. on cream slip.
Remains of handle stub; plus non-joining body sherd.
PLATE B.40

605.
Rd. 14.0 Pht. 9.5
A1b/A2b P1b/P2b

606. //
Rd. 12.0
A1a P1a

607.
B/S
A1a Dc1
Black and red dec.

608.
Rd. 13.0 Pht. 7.0
A31 Sc18

609.
Rd. 12.0 Pht. 5.0
A5 P5

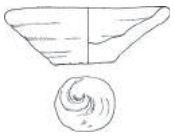
610.
Rd. 12.0 Pht. 3.0
B3* P9 *Reduced

611.
Rd. 12.0 Pht. 3.0
A1a P1a

612.
Rd. 13.0 Pht. 3.0
A1b Sc2

613.
Rd. 12.0 Pht. 2.5
A1a Sr1

NUMBERS 614–630 TRENCH 15 CONTEXT 28 (1 OF 2)



614. //
Rd. 10.0
A1a P1a
Rim pres.

615. //
Rd. 10.0 Bd. 5.0
Ht. 1.5
A1a P1a
Complete profile.

616.
Rd. 10.0 Bd. 4.0
Ht. 1.3
A2b P2b
Near complete.

617.
Rd. 12.0 Pht. 2.5
A1b P1b

618.
Rd. 12.0 Pht. 2.0
A1b P1b

619. //
Rd. 10.0
A1a P1a
Rim pres.

620.
Rd. 20 Pht. 6.0
B15 P25

621.
Rd. 14.0 Pht. 3.5
A2a P2a

622.
Rd. 16.0 Pht. 3.0
A2a P2a

623.
Rd. 24.0 Pht. 8.5
A1a P1a

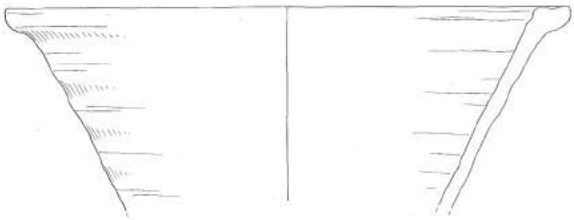
624. //
Rd. 20.0
A1a P1a

625.
Rd. 20.0 Pht. 8.5
A1b Sc2

626.
Rd. 22.0 Pht. 9.0
A1a Sc1

627.
Rd. 22.0 Pht. 7.5
A1a P1a

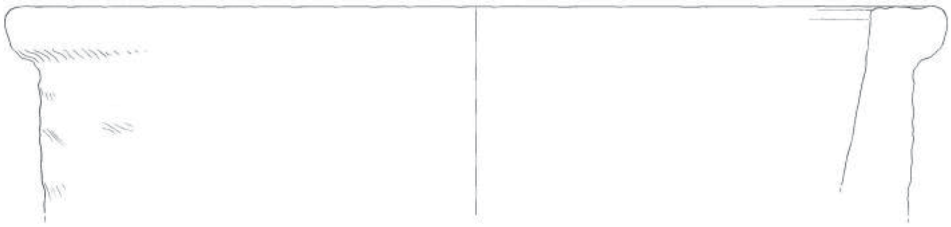
628.
Rd. 18.0 Pht. 6.0
A1a P1a



629.
Rd. 30.0 Pht. 11.0
A1a Sc1

630.
Rd. 36.0 Pht. 5.5
A4 P4

NUMBERS 631–650 TRENCH 15 CONTEXT 28 (2 OF 2)



631.
Rd. 50.0+ Pht. 11.0
A4 Sr3

632.
Rd. 8.0 Pht. 3.5
A1a Sc1

633.
Rd. 9.0 Pht. 4.0
A5 P5

634.
Rd. 10.0 Pht. 3.0
A2a P2a

635.
Rd. 12.0 Pht. 3.5
A2b P2b

636.
Rd. 6.0 Pht. 3.5
A31 P41

637.
Rd. 12.0 Pht. 4.5
A1a Sc1

638.
Rd. 11.0 Pht. 4.0
A1a Sc1

639.
Rd. 12.0 Pht. 3.6
A1a Sc1

640.
Rd. 10.0 Pht. 3.0
B10 P21

641.
Rd. 12.0 Pht. 4.0
A5 Sc6

642.
Rd. 12.0 Pht. 7.0
A29 P38

643. //
Rd. 10.0
A2a P2a

644.
Rd. 12.0 Pht. 3.5
A5 P5

645.
Rd. 16.0 Pht. 4.5
A1a P1a (Vitrified)

646.
Rd. 9.0 Pht. 4.0
A2a P2a

647.
Rd. 10.0 Pht. 3.5
A2b P2b

648.
Rd. 12.0 Pht. 5.5
A1a P1a
Part of 1 handle.
Also a piece from (18).

649. //
Rd. 10.0
A1a P1a

650.
Rd. 14.0 Pht. 4.5
A1a P1a

NUMBERS 651–670 TRENCH 20 CONTEXT 35 (1 OF 8)

651.
Rd. 11.0 Bd. 4.0
Ht. 3.0
A1a P1a
Hole through base.
Complete profile.

652.
Rd. 12.0 Bd. 5.0
Ht. 3.5
A1a P1a
Complete profile.

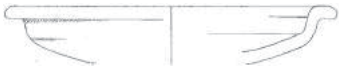
653.
Rd. 12.0
B15 P25

654. //
Rd. 10.0
A1a Sc1
Rim pres.

655.
Rd. 13.0 Bd. 6.0
Ht. 4.0
A1a P1a
Complete profile.

656.
Rd. 12.0 Bd. 4.5
Ht. 3.5
A1a P1a
Complete profile.

657.
Bd. 7.0 Pht. 4.5
A1a P1a



658.
Rd. 16.0 Pht. 3.0
A1b Sr15

659.
Rd. 14.0 Bd. 5.5 Ht. 3.5
A1a P1a
Complete profile.

660. //
Rd. 14.0
A1a P1a
Rim pres.

661. //
Rd. 20.0
A1a P1a
Rim pres.

662.
Rd. 14.0 Bd. 8.0 Ht. 3.0
A1a P1a
Near complete.

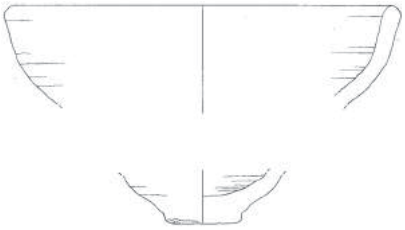
663.
Rd. 16.0 Pht. 3.0
A1a P1a

664.
Rd. 20.0 Pht. 4.5
A1a P1a

665.
Rd. 12.0 Pht. 4.0
A1a Dp1
Black bands.

666.
Rd. 12.0 Pht. 3.0
A1b Sc2

668.
Rd. 32.0 Pht. 6.5
A1a P1a



667.
Rd. 20.0 Bd. 4.0
B15 P25
Rim and base do not join.

669.
Rd. 15.0 Pht. 7.5
A1a P1a

670. //
Rd. 13.0
A1a P1a
Rim pres.

NUMBERS 671–680 TRENCH 20 CONTEXT 35 (2 OF 8)

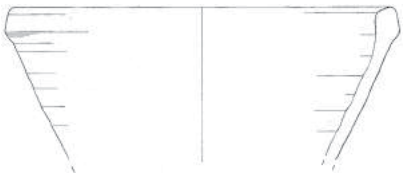
671.
Rd. 20.0 Pht. 4.0
A1a P1a

672.
Rd. 22.0 Pht. 6.5
A1a Sc1

673.
Rd. 22.0 Pht. 7.0
A1a Sc1

674.
Rd. 20.0 Pht. 6.5
A1a P1a

675.
Rd. 22.0 Pht. 7.0
A1b Sc2



676.
Rd. 20.0 Pht. 8.0
A1b Sc2

677. //
Rd. 22.0
A1a Sc1

678.
Rd. 38.0 Pht. 9.0
A1a P1a

679.
Rd. 24.0? Pht. 4.5
A1a P1a

680.
Rd. 34.0 Pht. 5.0
A1a P1a

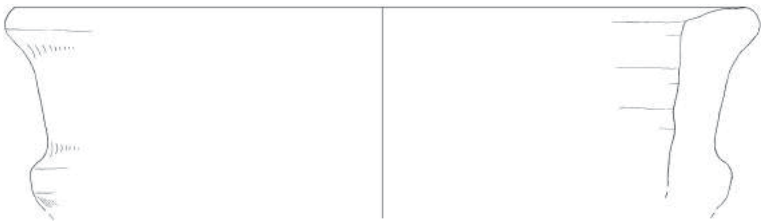
NUMBERS 681–688 TRENCH 20 CONTEXT 35 (3 OF 8)

681.
Rd. 30.0? Pht. 3.5
A1b Sc2

682.
Rd. 20.0 Pht. 3.0
A1a Sc1

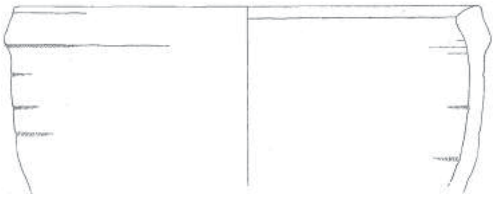
683.
Rd. 36.0 Pht. 4.5
A1b Dc2
Red rim?

684.
Rd. 28.0 Pht. 4.0
A1b Sc2



685.
Rd. 40.0 Pht. 11.0
A4 Sc5

686.
Rd. 36.0 Bd. 32.0 Ht. 10.0
A4 P4
Near complete profile.



687. //
Rd. 22.0
A1b Sc2

688.
Rd. 26.0 Pht. 7.5
A1a Sc1

NUMBERS 689–702 TRENCH 20 CONTEXT 35 (4 OF 8)

689.
Rd. 20.0 Pht. 9.5
A1a P1a

690.
Rd. 12.0 Pht. 8.0
A1a P1a

691.
Rd. 18.0 Pht. 11.0
A1a P1a

692.
Rd. 18.0 Pht. 7.0
A1a P1a

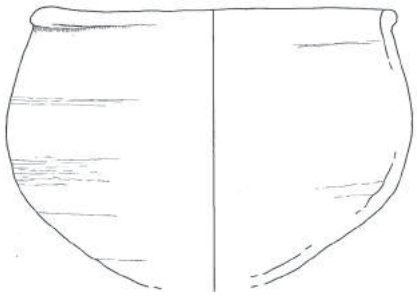
693.
Rd. 16.0 Pht. 5.0
A1b Sc2

694.
Rd. 20.0 Pht. 4.5
A1a Sc1

695.
Rd. 18.0 Pht. 8.5
A1a P1a

696.
Rd. 20.0 Pht. 5.0
A1a P1a

697.
Rd. 18.0 Pht.8.0
A1a P1a



698. //
Rd. 16.0
A1a P1a
Blackened ext.; Rim-UB pres.

699. //
Rd. 22.0
A1a P1a

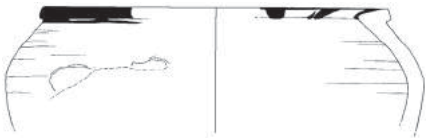
700.
Rd. 16.0 Pht. 5.0
A1a P1a

701.
Rd. 16.0 Pht. 3.0
A2b Sc4

702. //
Rd. 20.0
A1a P1a

NUMBERS 703–718 TRENCH 20 CONTEXT 35 (5 OF 8)

703.
Rd. 16.0 Pht. 3.5
A1a Dp1
Black rim ticks and band;
red rim ext.



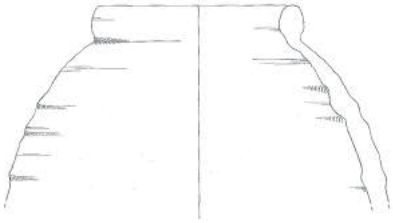
704.
Rd. 18.0 Pht. 6.5
A1a Dc1
Black rim ticks.
Trace of handle attachment.

705.
Rd. 20.0 Pht. 3.5
A1a Dp1
Black rim ticks and band.

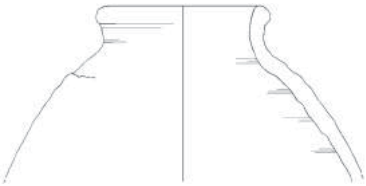
706.
Rd. 20.0 Pht. 3.0
A1a Dp1
Red rim, black band.

707. //
Rd. 12.0
B3 P9
Part of 1 handle pres.

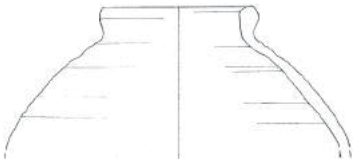
708. //
Rd. 10.0
A2a P2a



709.
Rd. 10.0 Pht. 10.4
A1a/A31 P1a/P41



710.
Rd. 8.0 Pht. 9.0
A1b P1b



711. //
Rd. 8.0
A1a P1a

712.
Rd. 10.0 Pht. 5.0
A2a P2a

713.
Rd. 9.0 Pht. 3.0
A2a P2a

714. //
Rd. 9.0
A1b Sc2

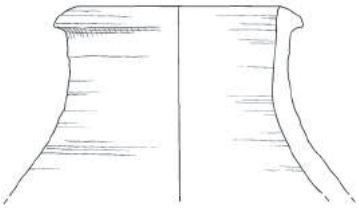
715.
Rd. 10.0 Pht. 3.5
A5 P5
Blackened ext.

716.
Rd. 12.0 Pht. 2.5
A2a P2a

717.
Rd. 8.0 Pht. 3.5
A1a P1a

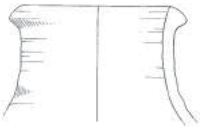
718.
Rd. 6.0 Pht. 4.0
A1a P1a

NUMBERS 719–733 TRENCH 20 CONTEXT 35 (6 OF 8)



719.
Rd. 12.0 Pht. 10.0
A5 Sr12

720.
Rd. 13.0 Pht. 4.0
A1b Dc2
Black band.



721.
Rd. 10.0 Pht. 6.0
A1a Sc1

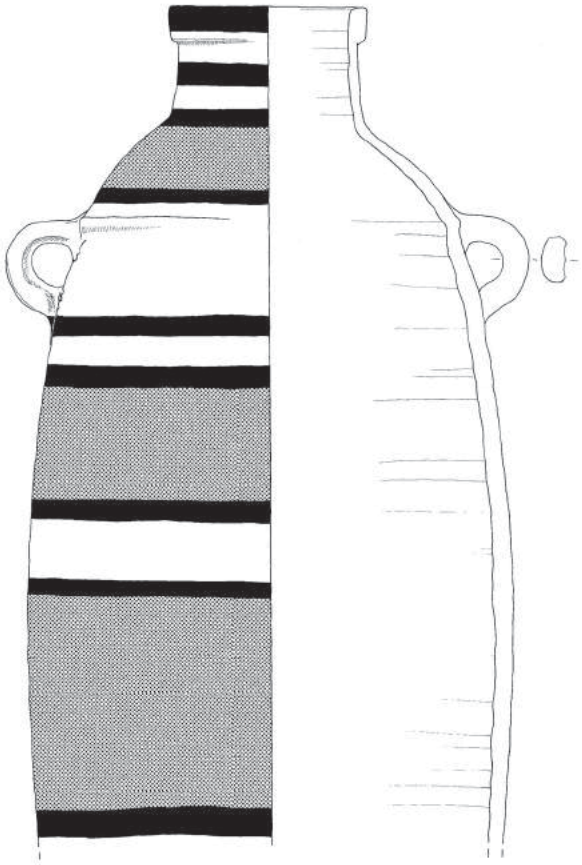
722.
Rd. 10.0 Pht. 4.5
A1b Sc2

723.
Rd. 12.0 Pht. 7.0
A1a Sc1
Blackened ext.

724.
Rd. 13.0 Pht. 5.0
A1b Sc2

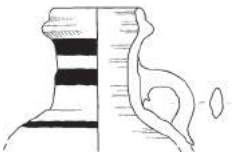
725.
Rd. 12.0 Pht. 4.0
A1a Sc1

726.
Rd. 10.0 Pht. 2.5
A1a Dp1
Red rim.



731. (Reg. 20/045)
Rd. 10.0 MaxD. 26.0 Pht. 44.0
A1a Dc1
Black and dark red bands; most of profile and 2 handles pres.
PLATE B.41

727.
Rd. 8.0 Pht. 4.0
A1a P1a



728.
Rd. 5.0 Pht. 7.5
A1a Dc1
Black bands;
1 handle.

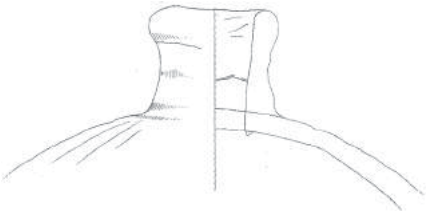
729.
Rd. 8.0 Pht. 4.0
B3 P9
Part 1 handle pres.

730.
Rd. 5.0 Pht. 3.0
A1a P1a

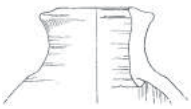
732.
Rd. 10.0 Pht. 5.0
A1a Dc1
Black bands.

733.
Rd. 12.0 Pht. 4.0
A1a P1a

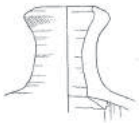
NUMBERS 734–747 TRENCH 20 CONTEXT 35 (7 OF 8)



734. //
Rd. 7.0
A1a P1a

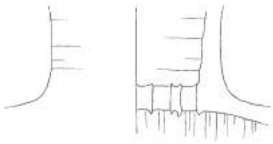


735.
Rd. 6.0
Nht. 3.5
A1a P1a



736.
Rd. 4.5
Nht. 4.0
A2a P2a

737.
Neck diam. 9.0
A1a Sc1
Strainer inside neck.



738.
Neck diam. 9.0
A1b Sc2
Strainer inside neck.

739. //
Rd. 20.0
A1a P1a

740.
Rd. 20.0 Pht. 4.5
A1a P1a

741.
Rd. 12.0 Bd. 14.0 Ht. 6.0
A1a P1a
Complete profile.

742. //
Rd. 14.0 Bd. 14.0 Ht. 5.0
A1a P1a
Complete profile.

743.
Rd. 12.0 Pht. 4.0
A1a P1a

744. //
Rd. 16.0 Bd. 14.0 Ht. 5.0
A1a Sc1
Complete profile.

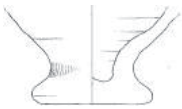
745.
Rd. 16.0 Bd. 14.0 Ht. 6.0
A1b Sc2
Complete profile.

746.
Rd. 13.0 Bd. 12.0 Ht. 6.0
A1a P1a
Complete profile.

747.
Rd. 16.0
A1a Sc1

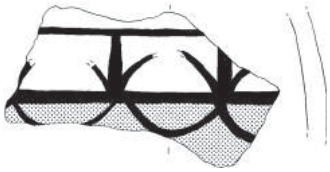
NUMBERS 748–759 TRENCH 20 CONTEXT 35 (8 OF 8)

748.
Bd. 10.0 Pht. 5.0
A1a/A4 P1a/P4
Heavily burnt core
and int.

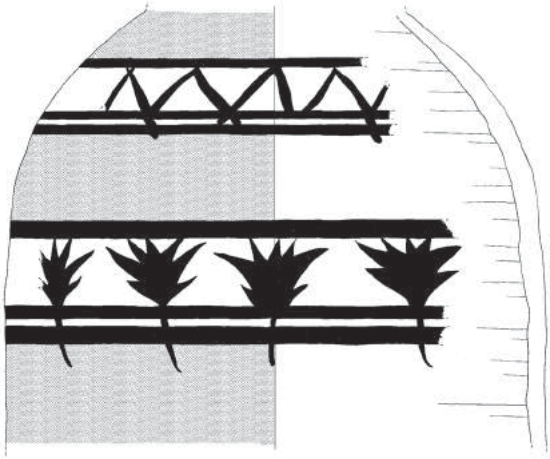


749. //
Bd. 5.5
A1a P1a

750.
B/S
A1a Dc1
Black dec.



751.
B/S
A1a Dr1
Black and cream dec.

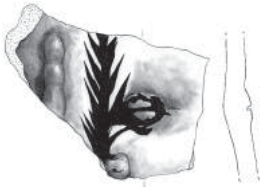


752.
MaxD. 29.0 Pht. 23.0
A1a Dr1
Black and cream dec. on red slip.
PLATE B.42

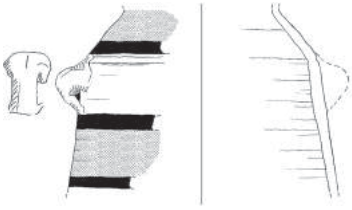
753.
B/S
A1b Dc2
Black and red dec.

754.
B/S
A1a Dp1
Black dec.
PLATE B.43

755.
B/S
A1a Dc1
Black dec.



756.
B/S
A1a Dp1
Black dec;
moulded dec.
Bes vessel.
PLATE B.44



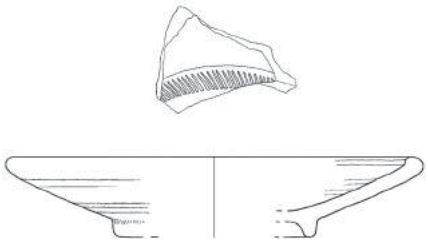
757.
MaxD. 14.0 Pht. 10.0
A1a Dp1
Black and cream bands;
1 handle pres.

758.
B/S
MaxD. 12.0 Pht. 4.0
A1a Dc1
Black band.

759.
B/S
MaxD. 11.0 Pht. 5.0
A1a Dc1
Black bands.

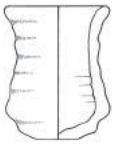
NUMBERS 760–768 MISCELLANEOUS TRENCHES (1 OF 3)

760.
Trench 35 (46)
Rd. 20.0 Pht. 2.0
A2b (Nile Silt?) Pol.1
Black/grey via reduction; polished.
Possible Nile Silt.
PLATE B.45

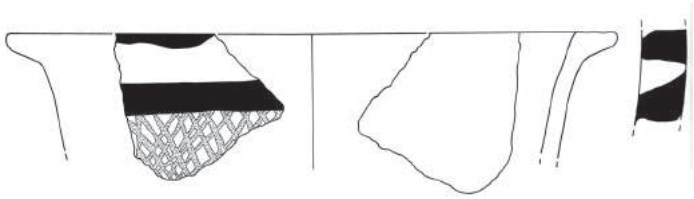


761.
Trench 22 (5)
Rd. 22.0 Bd. 11.0 Ht. 4.5
A2b Pol.1
Black/grey via reduction; polished.
Near complete profile.
PLATE B.46

762.
Trench 35 (41)
Rd. 12.0
A1a* Dp1
*Unsure, appears local; Black dec.; modelled dec.
PLATE B.47

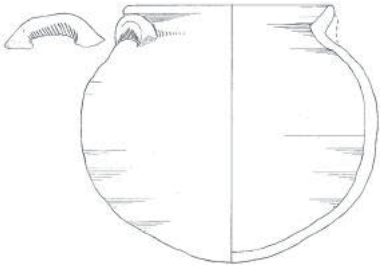


763.
Trench 1 (5)
Rd. 5.5 Ht. 7.0
A1a P1a

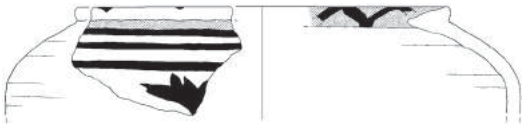


764.
Trench 1 (5)
Rd. 32.0 Pht. 6.5
A1a Dc1
Black and red dec.

765.
Trench 23 (1)
Rd. 22.0 Pht. 10.0
A1a Dc1
Black bands and red rim on cream;
1 handle preserved.



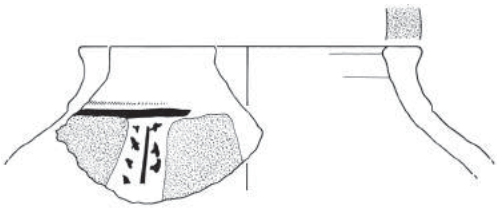
767. (Reg. 35/105)
Trench 35 (29)
Rd. 10.7 Ht. 13.0
B3 Sr8 (rim/ext.)
Base is burnt out; complete profile and 1 handle pres.



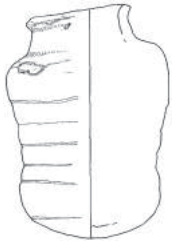
766.
Trench 23 (8)
Rd. 22.0 Pht. 5.5
A1a Dc1
Black bands and floral motif; red rim.
PLATE B.48

768.
Trench 23 (8)
MaxD. 11.5 Pht. 6.0
Import (Nile Silt B)
Black, polished ext.

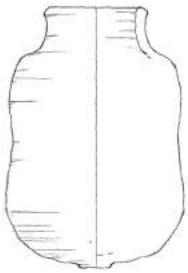
NUMBERS 769–777 MISCELLANEOUS TRENCHES (2 OF 3)



769.
Trench 1 (5)
Rd. 18.0 Pht. 7.0
A1a Dc1
Black and red dec.



770. (Reg. 34/001)
Trench 34 (4)
Rd. 5.6 Ht. 11.7
A1a P1a
Complete.

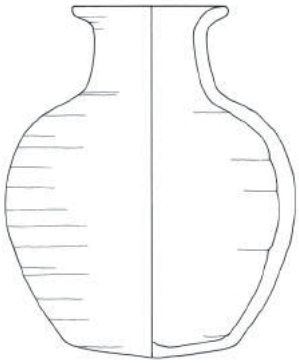


771.
Trench 23 (10)
Rd. 5.5 Ht. 13.5
MaxD. 9.5
A1a P1a
Complete.

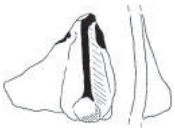
772. (Reg. 28/030)
Trench 28 (14)
Pht. 4.7 MaxD. 6.0
A2a Drb1
Red burnished ext.;
black dashes on neck.

773. (Reg. 15/016)
Trench 15 (Sth Baulk)
Rd. 2.0 Bd. 2.5 Ht. 8.0
Import* Polished?
*Black-fired, mica, limestone;
mould-made in two halves.
PLATE B.49

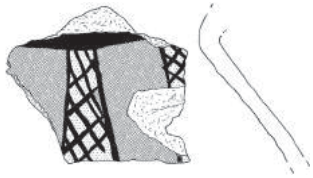
774. (Reg. 35/106)
Trench 35 (48)
Rd. 7.0 Bd. 8.0 Ht. 23.4
A1a Dc1 (ext.)
Red and black dec. on cream; modelled features; Red paint may have been applied post-firing, very fragile.
PLATE B.50



775.
Trench 1 (5)
Rd. 8.2 Bd. 8.6 Ht. 18.4
A2a P2a/Sc1?



776.
Trench 37 (1/4)
A1a Dc1
Black dec.
Bes-vessel.
PLATE B.51



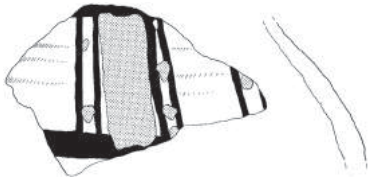
777.
Trench 11 (8)
A1a Dc1
Black and red dec.
PLATE B.52

NUMBERS 778–784 MISCELLANEOUS TRENCHES (3 OF 3)

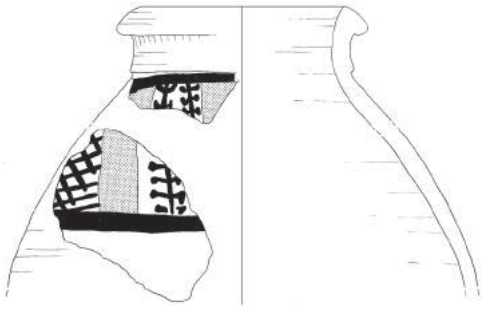
778.
Trench 11 (x)
A1a Dc1
Black and red dec.
PLATE B.53

779.
Trench 23 (21)
Rd. 12.0 Pht. 6.0
A31 Dc9
Red and black dec.

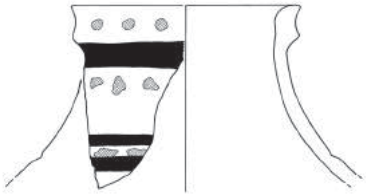
780.
Trench 28 (14)
MaxD. 10.0
A2a Drb1
Black dec. on red burnished slip.
PLATE B.54



781.
Trench 20 (2)
A31 Dc9
Black and red dec.
Plate B.55



782.
Trench 23 (8)
Rd. 16.0
A1a Dc1
Black and red dec. on cream slip; rim and body sherds do not join.
PLATE B.56



783.
Trench 1 (5)
Rd. 12.0 Pht. 9.5
A1a Dc1
Red and black dec.

784.
Trench 23 (8)
Rd. 11.0 Pht. 9.0
A1a/A5 Dc1/Dc11
Red and black dec.

APPENDIX 3

PTOLEMAIC POTTERY FORMS: EXAMPLES AND PARALLELS

TABLE A3.1 Examples of Ptolemaic pottery forms in the corpus (forms are described in CHAPTER 3).

Form	Pot Numbers (Mut al-Kharab; APPENDIX 2)	Pot Numbers (other sites; APPENDIX 5)
1	349; 421; 430; 480; 489; 568–569; 615–616 Thicker walled variant: 651–652	796
2	614	799; 1021; 1043
3	366	
4a	367; 760–761	
4b	368	
4c	1; 25; 168; 315	
5a	49; 81; 97; 145; 192	879
5b	24; 169	
6	565	
7a		843(?); 1026
7b		1025; 1036
7c	88	
8a		1006
8b	113; 664	
9a	4; 70; 85–86; 101–102; 236; 322; 373; 375; 448	
9b	352; 619	857; 919; 1133; 1300
9c		940; 1023–1024; 1232; 1265; 1305
9d	237	
10	655–656; 659	1022
11a	3; 28–29; 52; 71; 100; 175–176; 196–197; 241–242; 305; 323; 353; 374	858 (miniature); 1051–1052
11b	87	
11c	235	
12a	55; 103(?); 233	
12b	318	938
13	321	
14	234; 376 Similar profile, no handle preserved: 104; 329	
15	229–230; 350; 370	
16	98; 232; 317; 369	
17	505	870; 1033; 1044
18	32(?); 172–173; 491(?)	952(?)
19		1064(?); 1225
20	566	1029; 1037–1038; 1050; 1058; 1165; 1167
21		1007
22	327	941
23		1016; 1034–1035; 1045–1047
24a	54; 106; 178; 246; 307; 326; 383–384	
24b	31; 53	1069; 1226

Form	Pot Numbers (Mut al-Kharab; APPENDIX 2)	Pot Numbers (other sites; APPENDIX 5)
24c	248; 382	1064; 1090
25	381	1017; 1048; 1152–1153; 1227; 1266; 1302; 1341
26	228	
27	385	797; 859 (incurved); 860–861
28	245	1049
29		901; 907; 925 (direct rim); 945; 1011; 1111; 1315
30a	121; 123; 200; 250–251; 330–331; 356–357; 562	900; 1053; 1071; 1314
30b	153; 623; 625; 674–675	903; 924; 1081; 1097; 1130; 1228
30c		875; 899; 911; 923; 1101; 1103; 1288
30d	673	801; 1061; 1250
30e	120; 580; 624	1154; 1267
30f	576	968; 1065; 1229; 1252
31	629	805–808; 853; 873; 898; 922; 964; 1205; 1287; 1313; 1316; 1349
32a	9; 11; 76; 124; 179; 260; 388; 390; 392	961; 963; 1168
32b	64; 154; 259; 333–336; 678; 681	802; 862; 874
32c	35; 78; 94; 202; 391	975
33	764	
34	77; 261; 556	973; 1254–1255
35	34; 126; 395; 584; 687	833; 902; 935; 944; 967; 970; 974; 1098; 1107; 1186; 1131; 1253
36	8; 69; 195; 378(?); 412(?)	1221(?)
37		1039
38	493–500; 555; 563; 572–573	854–855; 880; 920; 1084–1088b; 1109; 1151
39	379	856
40	201	
41a	57; 60; 79	
41b	59	
41c	112	
42	149; 762(?)	
43		1054; 1079; 1116; 1333 Thicker rim, unknown base type: 883; 94; 1126; 1169; 1246; 1282; 1286; 1298; 1334
44		790; 810; 812; 1099
45a		1055; 1206
45b	417; 427; 628; 766; 703–706	809; 1142; 1304 (spouted)
45c		1056; 1222
45d	701	787; 951; 1010; 1083; 1141; 1170; 1318
46	765 (lug handle)	1146
47a	45; 96; 191; 359; 407–408; 707	791; 816; 849; 884; 888
47b	209; 290; 610 (no handle preserved)	987
47c		836; 933; 942; 1213–1214
47d		817; 863; 868
48	308; 519 (no handle preserved); 767	846 (taller handles)
49	208; 406 (no handle preserved)	
50	127 (spouted; designated Form 86)	1027
51a		913; 1234
51b		1158
51c		926; 1074; 1235
51d		1269
52		912; 1156; 1155 (shorter); 1157
51/52		Variant with round base: 1067

Form	Pot Numbers (Mut al-Kharab; APPENDIX 2)	Pot Numbers (other sites; APPENDIX 5)
53	763	
54	73; 150	
55		821 (rim only); 1233; (also Site 64, unillustrated)
56	181(?); 210; 337; 398; 591; 636; 770–771	895; 910; 936; 1012; 1028; 1031 (taller); 1138(?); 1159; 1272 Larger variant: 819
57		837 (miniature); 917
58	453	1160
59	80; 186; 455; 477; 605–606; 608–609; 642–645; 647; 709	887; 1082; 1123; 1127; 1135; 1248
60	188	792; 1120; 1139; 1277; 1325
61a	67; 400; 708	
61b	190; 219	978; 1258
61c	66; 138; 560	
61d	20; 419; 559; 713	834; 980; 1202
62	769	
63a		834; 851; 1076–1077; 1096; 1164; 1279
63b	523; 527; 639	869; 1078
64a	309; 313; 488	
64b	131; 133–134; 189; 271; 274–275; 312; 363	994; 1138; 1188; 1262; 1299
64c	61; 135; 216; 484; 528	
64d	362	986
64e	276–278; 280	829; 993; 1203
64f	43; 600; 780	
64g	162	990
64h	187; 220; 364; 402	992
64i	93; 549; 567; 727	988; 1189; 1204; 1210
64j	217; 602; 783	830; 1113; 1238
64k	163	1211
65a	62; 183; 215; 282; 404; 475; 601; 637; 719	786; 890; 1003; 1013; 1068; 1104; 1121; 1172; 1207; 1327
65b	132; 270; 401; 526; 603; 638; 720	1247; 1263
65c	42; 218; 425; 438–439; 721	991; 995; 1032; 1060; 1075; 1105; 1223
65d	161; 272; 311; 403	1014
65e	41; 345; 564	841; 1095
65f	546; 782	785; 793; 831; 845; 1112; 1136; 1171; 1184; 1190; 1218; 1260; 1261; 1270; 1328; 1347
65g	723–724	794; 1215; 1231; 1239; 1275; 1306
66	162; 314; 600	Variant with handle joining at rim: 897; 1004
67a		1009; 1278; 1326
67b		865
67c	139; 285; 365	825–826; 889; 1118; 1174; 1191; 1289; 1320–1321; 1336; 1343; 1345
67d	339	835; 950; 1290; 1295; 1309; 1322; 1346
67e	140; 184	937
67f	360; 413; 478	788–789; 844; 850; 984–985; 1162; 1183; 1268; 1291; 1301; 1323; 1337
67g	340; 361	827; 877; 896; 934; 947; 1293; 1342
68	632 (rim only)	1093; 1209 (rim only); 1283
69	14; 17; 19; 65; 157; 211–213; 265–266; 267; 342; 762(?); 775 (no handle)	1092 (body only preserved)
70	Similar rim: 180; 590; 595; 726 (unknown base)	1020

Form	Pot Numbers (Mut al-Kharab; APPENDIX 2)	Pot Numbers (other sites; APPENDIX 5)
71		891; 918; 1271 Similar rim/handle, unknown body/base type: 1015; 1102; 1114; 1148; 1177; 1240; 1292; 1332
72	37; 773 (mould made)	
73		1041 Similar form with narrower neck: 842; 852
74a		1008; 1059; 1294; 1311; 1344 (handle attached to rim); 1348
74b	437	Handle attached at rim, unknown base: 897; 1004
75a		930; 1057 Variant with taller neck, unknown base: 1224
75b		929
76		823 (similar, unknown base); 906 Variant with modelled rim, unknown base: 1259
77		1030
78		909 (miniature); 928
79	16; 167 (fragment); 774; 776 (fragment)	1002 (fragment from very large vessel)
80a	487	
80b	436	
81		864; 886; 893; 904; 1040; 1094; 1304 (wider)
82		1091
83	223 (spout only preserved); 289	1018; 1066
84		914; 946; 1073; 1230
81–84	Variant, unknown base type: 222	798
85		915
86	127	1027 (non-spouted variation = Form 50)
87	547 (spout only preserved)	916
88		927
89a	295	
89b		824
90		1019; 1274
91		878
92		932
93		1042; 1124 (without handles)
94	137; 224; 291; 293; 518; 734	996; 1140; 1219 Variant with squarer rim: 1180
95	292	
96	136; 735–736	838; 998; 1108; 1137; 1179; 1248; 1329
97	165; 294	1001; 1005; 1178 Taller with collared rim: 839; 1330–1331; 1339
98	164	999–1000; 1150
99	13; 36; 114; 262; 587; 630–631; 685–686	795; 803; 976
100a	155–156; 409; 440; 451; 479; 586; 650	1220
100b	22; 205; 589	
100c	203; 420	
100	Variants: 23; 48; 111; 348; 741–747	
101	204; 263; 264(?)	

TABLE A3.2 Parallels for Ptolemaic pottery forms in the published literature (forms are described in CHAPTER 3).

Form	Parallels	Location	Date (BCE)
1	Aston 1999a: Pl. 78, Nos 2154–2161; Pl. 98, No. 2568	Elephantine	4th century
1	Aston 1999a: Pl. 91, Nos 2439, 2442; Pl. 100, Nos 2638–2639; Pl. 101, No. 2656; Pl. 109, No. 2893	Elephantine	3rd century
1	Aston 1999a: Pl. 111, No. 2937	Elephantine	Late 3rd – 2nd century
1	Marchand 2002a: Fig. 5c	Tebtynis	Middle 3rd century
2	Aston 1999a: Pl. 92, No. 2464; Pl. 107, No. 2817; Pl. 108, No. 2850	Elephantine	3rd century
2	Aston 1999a: Pl. 113, Nos 3000–3001; Pl. 116, No. 3058	Elephantine	Late 3rd – 2nd century
2	Knoblauch and Bestock 2009: Fig. 10q	Abydos	Ptolemaic
3	Aston 1999a: Pl. 100, Nos 2638–2639	Elephantine	3rd century
3	Coulson and Leonard 1982: Ills 11.80–72	Naukratis	3rd – 2nd century
4	Hayes and Harlaut 2001: 118, Figs 12–13	Alexandria	c. 120
4	Knoblauch and Bestock 2009: Figs 10n–o	Abydos	Ptolemaic
4	Masson 2011: Figs 82–83	Karnak	Ptolemaic
4a	Berlin 2001: Fig. 2.1, Nos 1–23; Fig. 2.2, Nos 1–18; Fig. 2.3, Nos 1–25	Naukratis	Late 3rd – Late 2nd century
4a	Gallorini 2007: Fig. 1c/1093	Saqqara	3rd century
4a	Coulson and Leonard 1982: Ills 4.7, 9.2, 11.80–116	Naukratis	3rd – 2nd century
4a	Harlaut 2002: 284–286, Fig. 8f; Figs 9e–f; Fig. 10d	Alexandria	3rd century, 2nd century
4a	Ballet 1997: Pl. 1, No. 4	Tell al-Moufarig	End 3rd – 2nd century
4a	Aston 1999a: Pl. 111, No. 2928	Elephantine	Late 3rd – 2nd century
4a	Spencer 2003: Pl. 34.1	Tell el-Balamun	2nd – early 1st century
4a	Jacquet-Gordon 1997: Fig. 3d	Karnak North	Ptolemaic
4b	Ballet 1997: Pl. 1, No. 5	Tell al-Moufarig	End 3rd – 2nd century
4b	Ochsenschlager 1967: Fig. 12	Tell Timai	c. 150 – end of 2nd century
4c	Pierrat-Bonnefois 2002: 182, Fig. 4	Tod	Ptolemaic
4c	Jacquet-Gordon 1997: Fig. 3e	Karnak North	Ptolemaic
5	Aston 1999a: Pl. 94, No. 2510	Elephantine	3rd century
5a	Aston 1999a: Pl. 111, No. 2930; Pl. 119, No. 3089	Elephantine	Late 3rd – 2nd century
5a	Poludnikiewicz 1992: No. 11	Athribis	Turn of 3rd and 2nd century
5a	Spencer 2003: Pl. 34.2	Tell el-Balamun	2nd – early 1st century
5a	Jacquet-Gordon 1997: Fig. 3i	Karnak North	Ptolemaic
7	Aston 1999a: Pl. 102, No. 2690; Pl. 104, No. 2743	Elephantine	3rd century
7	Aston 1999a: Pl. 111, No. 2936	Elephantine	Late 3rd – 2nd century
7a	Aston 1999a: Pl. 84, No. 2272	Elephantine	4th century
7a	Aston 1999a: Pl. 119, No. 3094	Elephantine	Late 3rd – 2nd century
8a	Aston 1999a: Pl. 102, No. 2691	Elephantine	3rd century
8a	Aston 1999a: Pl. 93, No. 2487; Pl. 108, No. 2851	Elephantine	3rd century

Form	Parallels	Location	Date (BCE)
8b	Jacquet-Gordon *n.d.*: Fig. 10.6	Karnak North	Early Ptolemaic (Complex IIB)
8b	Aston 1999a: Pl. 69, Nos 1979–1980	Elephantine	5th – Early 4th century
8b	Aston 1999a: Pl. 99, No. 2604	Elephantine	4th century
8b	Aston 1999a: Pl. 104, No. 2739	Elephantine	3rd century
9	Coulson and Leonard 1982: Ill. 4.6	Naukratis	3rd – 2nd century
9a	Aston 1999a: Pl. 104, No. 2742	Elephantine	3rd century
9a	Aston 1999a: Pl. 118, No. 3079	Elephantine	Late 3rd – 2nd century
9b	Ochsenschlager 1967: Fig. 13	Tell Timai	c. 150 – end of 2nd century
9c	Rotroff 2006: Fig. 52, No. 318	Athens	110 BCE – 20 CE
9d	Petrie 1909a: Pl. 46, Nos 26,27	Memphis	c. 300
10	Wuttmann *et al.* 1996: Group 2, No. 17	ʻAin Manawir	Persian
10	Aston 1999a: Pl. 78, Nos 2162–2163	Elephantine	4th century
10	Aston 1999a: Pl. 92, No. 2457; Pl.94, No. 2522	Elephantine	3rd century
10	Aston 1999a: Pl. 111, No. 2941	Elephantine	Late 3rd – 2nd century
10	Masson 2011: Figs 38–39	Karnak	Ptolemaic
11	Sparkes and Talcott 1970: Fig. 9, No. 944	Athens	375–350
11	Sparkes and Talcott 1970: Fig. 8, Nos 829, 830, 832, 835, 841, 842; Fig. 9, No. 949	Athens	350–325
11	Pemberton 1989: Fig. 12, No. 126	Corinth	4th century
11	Aston 1999a: Pl. 92, No. 2454; Pl. 97, No. 2547	Elephantine	3rd century
11	Berlin 2001: Fig. 2.8, Nos 1, 7	Naukratis	Early 3rd century
11	Coulson and Leonard 1982: Ills 9.4, 9.6	Naukratis	3rd – 2nd century
11	Ballet 1997: Pl. 1, Nos 1–3	Tell al-Moufarig	Late 3rd – 2nd century
11	Aston 1999a: Pl. 111, No. 2931; Pl. 112, No. 2958; Pl. 119, No. 3099	Elephantine	Late 3rd – 2nd century
11	Hayes and Harlaut 2001: 118, Fig. 16	Alexandria	c. 120
11	Jacquet-Gordon 1997: Fig. 2	Karnak North	Ptolemaic
11	Pierrat-Bonnefois 2002: 184, Fig. 11	Tod	Ptolemaic
11	Brunton 1930: Pl. 42, No. 6	Qau	Ptolemaic
11	Knoblauch and Bestock 2009: Fig. 10q	Abydos	Ptolemaic
11a	Jacquet-Gordon *n.d.*: Figs 8.1-2	Karnak North	Early Ptolemaic (Complex IIB)
11a	Harlaut 2002: 284, Figs 8b–c	Alexandria	3rd century
11a	Aston 1999a: Pl. 119, Nos 3095–3098	Elephantine	Late 3rd – 2nd century
11b	Pemberton 1989: Fig. 13, No. 161	Corinth	Mid-3rd century
12	Aston 1999a: Pl. 98, No. 2582; Pl. 106, No. 2782 (both with unknown base type)	Elephantine	3rd century
12	Pfrommer 1996: 174, Fig. 5 (silver vessels)	Tukh el-Quarmous	Late 4th – early 3rd century
14	Coulson and Leonard 1982: Ill. 4.10	Naukratis	3rd – 2nd century
14	Rotroff 2006: Fig. 85, No. 673 (no handle)	Athens	115 – 86
14?	Wuttmann *et al.*1998: Fig. 59a (no handle)	ʻAin Manawir	Ptolemaic
15	Aston 1999a: Pl. 70, Nos 2011–2012	Elephantine	5th – Early 4th century
15	Aston 1999a: Pl. 78, No. 2167	Elephantine	4th century
15	Petrie 1909: Pl. 46, Nos 22,23	Memphis	c. 300
15	Aston 1999a: Pl. 104, No. 2744; Pl. 106, No. 2782	Elephantine	3rd century
15	Marchand 2002a: Fig. 5b	Tebtynis	Middle 3rd century
15	Coulson and Leonard 1982: Ills 11.80–66	Naukratis	3rd – 2nd century
15	Aston 1999a: Pl. 111, No. 2945	Elephantine	Late 3rd – 2nd century

Form	Parallels	Location	Date (BCE)
15	Petrie 1909: Pl. 46, No. 21	Memphis	c. 300
15	Knoblauch and Bestock 2009: Figs 10c–f	Abydos	Ptolemaic
16	Sparkes and Talcott 1970: Fig. 8, Nos 806, 808	Athens	350–310
16	Pemberton 1989: Fig. 12, No. 451	Corinth	Early 3rd century
16	Aston 1999a: Pl. 97, No. 2549; Pl. 102, No. 2695; Pl. 110, Nos 2912, 2914	Elephantine	3rd century
16	Harlaut 2002: 284, Fig. 8d	Alexandria	3rd century
16	Berlin 2001: Fig. 2.10, No. 6	Naukratis	3rd century
16	Coulson and Leonard 1982: Ills 4.1, 4.4	Naukratis	3rd – 2nd century
16	Ballet 1997: Pl. 1, No. 7	Tell al-Moufarig	End 3rd – 2nd century
16	Harlaut 2002: 284, Figs 11c–d	Alexandria	2nd century
16	Spencer 2003: Pl. 34.5	Tell el-Balamun	2nd – early 1st century
16	Jacquet-Gordon 1997: Fig. 1	Karnak North	Ptolemaic
16	Masson 2011: Fig. 86	Karnak	Ptolemaic
18	Aston 1999a: Pl. 120, No. 3124	Elephantine	Late 3rd – 2nd century
19	Rotroff 2006: Fig. 52, No. 312	Athens	325 – 275
19	Aston 1999a: Pl. 92, No. 2451	Elephantine	3rd century
19	Aston 1999a: Pl. 111, No. 2955; Pl. 115, Nos 3023–3025	Elephantine	Late 3rd – 2nd century
19	Pierrat-Bonnefois 2002: 184, Fig. 13	Tod	Ptolemaic
20	Aston 1999a: Pl. 91, No. 2445; Pl. 101, No. 2649	Elephantine	3rd century
20	Aston 1999a: Pl. 115, No. 3037; Pl. 120, No. 3117	Elephantine	Late 3rd – 2nd century
21	Aston 1999a: Pl. 66, No. 1931	Elephantine	Late 5th – Early 4th century
22	Masson 2011: Fig. 14	Karnak	End of the Late Period
23	Aston 1999a: Pl. 108, No. 2868	Elephantine	3rd century
24b	Marchand 2002a: Figs 7b–d	Tebtynis	Middle 3rd – 2nd century
24b	Aston 1999a: Pl. 112, No. 2986	Elephantine	Late 3rd – 2nd century
24b	Ochsenschlager 1967: Fig. 16	Tell Timai	c. 150 – end of 2nd century
24b	Knoblauch and Bestock 2009: Figs 10j–k (more angular profile)	Abydos	Ptolemaic
25	Lauffray 1995: Fig. 47, Nos 202–204	Karnak	Ptolemaic – Early Roman
26?	Aston 1999a: Pl. 111, Nos 2943, 2950	Elephantine	Late 3rd – 2nd century
27	Coulson and Leonard 1982: Ills 11.81–2	Naukratis	3rd – 2nd century
27	Ballet 1997: Pl. 1, No. 1	Tell al-Moufarig	Late 3rd – 2nd century
27	Ochsenschlager 1967: Fig. 28	Tell Timai	First half of 2nd century
27	Ochsenschlager 1967: Fig. 15	Tell Timai	c. 150 – end 2nd century
27	Masson 2011: Figs 70–71	Karnak	Ptolemaic
28	Aston 1999a: Pl. 115, Nos 3023–3024, 3027	Elephantine	Late 3rd – 2nd century
29	Aston 1999a: Pl. 111, No. 2925	Elephantine	Late 3rd – 2nd century
29	Rotroff 2006: Fig. 50, No. 288	Athens	150–100
29	Spencer 1999: Pl. 39.9	Tell el-Balamun	Ptolemaic
30	Wuttmann *et al.* 1998: Figs 59d–e, 60a (Demotic ostrakon, 'Ptolemy son of Ptolemy')	'Ain Manawir	Early Ptolemaic
30	Aston 1999a: Pl. 118, No. 3083	Elephantine	Late 3rd – 2nd century
30	Michałowski *et al.* 1950: Fig. 217, No. 862	Edfu	Late Ptolemaic
30	Ikram and Rossi 2007: Pl. 24a	'Ain Dabashiya	Ptolemaic – Early Roman?
30a	Dunand *et al.* 2013: Figs 178–179	'Ain Dabashiya	Ptolemaic
30a	Wuttmann *et al.*1998: Fig. 60b (Demotic ostrakon, 'Ptolemy son of Ptolemy')	Dush	3rd – beginning 2nd century

Form	Parallels	Location	Date (BCE)
30b	Jaritz and Rodziewicz 1994: Fig. 8, No. 85	Syene	4th? – 3rd century
30f	Brunton 1930: Pl. 41, No. 11	Qau	Ptolemaic
31	Aston 1999a: Pl. 83, No. 2262; Pl. 84, No. 2275	Elephantine	4th century
31	Jaritz and Rodziewicz 1994: Fig. 8, No. 83	Syene	Late 4th – 3rd century
31	Pemberton 1989: Fig. 2, No. 381	Corinth	Classical
32	Brunton 1937: Pl. 81, No. 21 (same rim)	Mostagedda?	Ptolemaic
32a	Rotroff 2006: Fig. 51, No. 301	Athens	115–86
32a	Aston 1999a: Pl. 107, No. 2837	Elephantine	3rd century
32a	Jacquet-Gordon *n.d.*: Fig. 12.9	Karnak North	Late Dynastic/Early Ptol. (Complex IIA)
32b	Aston 1999a: Pl. 109, No. 2874	Elephantine	3rd century
32b	Jaritz and Rodziewicz 1994: Fig. 8, No. 78	Syene	3rd century
32b?	Aston 1999a: Pl. 104, No. 2729 (decorated)	Elephantine	3rd century
33	Aston 1999a: Pl. 86, No. 2313	Elephantine	360–343
33	Jacquet-Gordon *n.d.*: Fig. 8.4	Karnak North	Early Ptol. (Complex IIB)
33	Aston 1999a: Pl. 95, Nos 2525–2530; Pl. 101, No. 2667	Elephantine	3rd century
33	Aston 1999a: Pl. 111, No. 2954	Elephantine	Late 3rd – 2nd century
36	Wuttmann *et al.* 1996: Group 1, No. 16	ʻAin Manawir	Persian
36	Marchand 2002a: Figs 11a–c	ʻAin Manawir	5th – 4th century
36	Sparkes and Talcott 1970: Fig. 7, Nos 691–692	Athens	375–325
36	Pfrommer 1996: 174, Fig. 5 (silver vessels)	Tukh el-Quarmous	Late 4th – early 3rd century
36	Schreiber 2003: 98, No. 39	Karnak	3rd – 2nd century
36/40?	Marchand 2002a: Figs 10a,b,e	Tebtynis	Middle 3rd century
36	Lauffray1995: Fig. 42, No. 390; Fig. 46, No. 57	Karnak	Ptolemaic
38	Aston 1999a: Pl. 112, No. 2969; Pl. 115, Nos 3034–3035	Elephantine	Late 3rd – 2nd century
38	Pierrat-Bonnefois 2002: 186, Fig. 16	Tod	Ptolemaic
38	Brunton 1930: Pl. 42, Nos 2,3,4	Qau	Ptolemaic
38	Dunand *et al.* 2013: Fig. 191	ʻAin Dabashiya	Ptolemaic
39	Lauffray 1995: Fig. 42, No. 390	Karnak	Ptolemaic?
40	Brones 2010: Figs 275, 378	El-Deir	End Late Period – Early Ptolemaic
40	Gallorini 2007: Fig. 1c/1071	Saqqara	Early Ptolemaic?
41	Pfrommer 1996: 174, Fig. 5 (silver vessels)	Tukh el-Quarmous	Late 4th – early 3rd century
42	Sparkes and Talcott 1970: Fig. 7, No. 721	Athens	325–310
42	Petrie and Mackay 1915: Pl. XXXVIII, Nos 4–7	Kafr Ammar	Ptolemaic
45	Aston 1999a: Pl. 98, No. 2581	Elephantine	3rd century
45	Jacquet-Gordon *n.d.*: Figs 14.5, 19.1	Karnak North	Early Ptolemaic (Complex IIB)
45	Masson 2011: Figs 61–62, 64	Karnak	Ptolemaic
46	Aston 1999a: Pl. 79, No. 2194	Elephantine	4th century
46	Aston 1999a: Pl. 94, No. 2508	Elephantine	3rd century
46	Schreiber 2003: 98, No. 30	Karnak East	3rd – 2nd century
46	Poludnikiewicz 1992: No. 1 (more elaborate rim and handles arch above rim)	Athribis	2nd century
46	Masson 2011: Fig. 63	Karnak	Ptolemaic
47	Coulson and Leonard 1982: Ill. 4.12	Naukratis	3rd – 2nd century
47	Ballet 1997: Pl. 1, No. 9 (variation without internal ledge)	Tell al-Moufarig	Late 3rd – 2nd century

Form	Parallels	Location	Date (BCE)
47	Wuttmann *et al.* 1998: Fig. 59b (no handle preserved)	‘Ain Manawir	Ptolemaic
47	Ikram and Rossi 2007: Pl. 24a	‘Ain Dabashiya	Late Ptol. – Early Roman?
47	Masson 2011: Fig. 76	Karnak	Ptolemaic
47a	Aston 1999a: Pl. 104, No. 2734; Pl. 108, No. 2844	Elephantine	3rd century
47a	Aston 1999a: Pl. 106, No. 2796 (different handle)	Elephantine	3rd century
47a	Rotroff 2006: Fig. 75, No. 595 (different handle position)	Athens	350–290 (+ later disturbance)
47b	Harlaut 2002: 282, Fig. 6a	Alexandria	2nd century
49	Michałowski *et al.* 1950: Fig. 171, No. 788	Edfu	Early Ptolemaic
49	Harlaut 2002: 280, Fig. 4d	Alexandria	3rd century
49	Rotroff 2006: Fig. 85, No. 671	Athens	150–110
49	Harlaut 2002: 282, Fig. 6c	Alexandria	2nd century
49	Masson 2011: Fig. 79	Karnak	Ptolemaic
51/52	Dunham 1957: Fig. 109, Nos 140a–e; Fig. 113, No. 480a	Meroë	2nd century CE?
53/54	Petrie1909: Pl. 46, Nos 67–68 (possible parallel)	Memphis	c. 300
53/54	Pemberton 1989: Fig. 5, No. 148	Corinth	Late 4th – early 3rd century
53/54	Hope 2004a: Fig. 9a (broadly similar)	Ismant al-Kharab	2nd or 3rd century CE
55	Petrie 1909: Pl. 46, No. 80 (same body)	Memphis	c. 300
56	Petrie and Mackay 1915: Pl. XLV, Nos 27–28	Atfieh	Ptolemaic
57	Dunand and Lichtenberg 2003: 4, Pl. 7	El-Deir	Ptolemaic
57	Dunand *et al.* 2013: Fig. 167	‘Ain Dabashiya	Ptolemaic
59	Aston 1999a: Pl. 108, No. 2848	Elephantine	3rd century
60	Aston 1999a: Pl. 99, No. 2597	Elephantine	4th century
60	Marchand 2002a: Fig. 4a	Tebtynis	Middle 3rd century
60	Masson 2011: Fig. 66	Karnak	Ptolemaic
61a	Aston 1999a: Pl. 103, No. 2718; Pl. 108, No. 2862	Elephantine	3rd century
61b	Marchand 2007: Fig. 36	Kharga	End 4th – 3rd century
61b	Aston 1999a: Pl. 107, No. 2831; Pl. 109, No. 2878	Elephantine	3rd century
61d	Jaritz and Rodziewicz 1994: Fig. 8, No. 73	Syene	3rd – 1st century
62	Aston 1999a: Pl. 117, No. 3071 (handled)	Elephantine	Late 3rd – 2nd century
62	Schreiber 2003: Pl. 15, No. 208 (handled)	Thebes (Ankh-Hor)	3rd century
63/65	Aston 1999a: Pl. 118, No. 3077	Elephantine	Late 3rd – 2nd century
63	Aston 1999a: Pl. 120, No. 3108	Elephantine	Late 3rd – 2nd century
64	Marchand 2007: Fig. 39	Kharga	End 4th – 3rd century
64	Schreiber 2003: 110, Nos 176–177 (Red-slip, black paint)	Thebes (Djehutymes)	3rd – 2nd century
64	Wuttmann *et al.*1998: Fig. 59c	‘Ain Manawir	Ptolemaic
65	Wuttmann *et al.* 1996: Group 13, No. 48 (Black bands)	‘Ain Manawir	Persian Period
65	Michałowski *et al.* 1950: Fig. 186, No. 821	Edfu	Late Ptolemaic
65e	Aston 1999a: Pl. 110, No. 2913	Elephantine	3rd century
65k	Brunton 1937: Pl. 81, No. 26	Mostagedda?	Ptolemaic
65p	Knoblauch and Bestock 2009: Figs 11a–b	Abydos	Ptolemaic
65p	Wuttmann *et al.* 1998: Fig. 59c	‘Ain Manawir	Ptolemaic

Form	Parallels	Location	Date (BCE)
66	Brones 2010: Figs 272, 375	El-Deir	Ptolemaic
67	Ikram and Rossi 2007: Pl. 24a	‘Ain Dabashiya	Late Ptol. – Early Roman?
67	Dunand *et al.* 2013: Fig. 176	‘Ain Dabashiya	Ptolemaic
67a	Marchand 2007: Fig. 37	Kharga	End 4th – 3rd century
67f	Spencer 2003: Pl. 36.4	Tell el-Balamun	2nd – early 1st century
67f	Knoblauch and Bestock 2009: Fig. 11c	Abydos	Ptolemaic
68	Pemberton 1989: Pl. 18, Nos 166–167	Corinth	3rd century
69	Sparkes and Talcott 1970: Fig. 3, Nos 264,276	Athens	500–480
69	Sparkes and Talcott 1970: Fig. 14, No. 1613	Athens	460–440
69	Ballet 1997: Pl. 2, No. 10 (with ring base)	Tell al-Moufarig	Late 3rd – 2nd century
69	Brunton 1930: Pl. 42, No. 7 (with ring-base)	Qau	Ptolemaic
69	Poludnikiewicz 1992: No. 2 (with ring base and modelled rim)	Athribis	Ptolemaic
69	Masson 2011: Fig. 80	Karnak	Ptolemaic
69	Marchand 2011: Group 7a	Tebtynis	Late Ptolemaic
72	French 1992: No. 33	Mendes	5th – 4th century
72	Aston 1999a: Pl. 98, No. 2584	Elephantine	3rd century
72	Petrie 1909: Pl. 46, Nos 73–75	Memphis	c. 300
72	Masson 2011: Fig. 90	Karnak	Ptolemaic
72	Berlin 2001: Fig. 2.34, No. 19	Naukratis	Ptolemaic
73	Rotroff 2006: Fig. 4, No. 24	Athens	250–225
73	Pemberton 1989: Fig. 4, No. 156	Corinth	3rd century
73?	Petrie 1909: Pl. 46, No. 62	Memphis	c. 300
74	Sparkes and Talcott 1970: Fig. 2, No. 20	Athens	500–480
74	Sparkes and Talcott 1970: Fig. 12, No 1445,1455	Athens	520–480
74	Burton-Brown 1948: Fig. 1, 54/47	Cyrene	Late 4th century
74	Jacquet-Gordon *n.d.*: Fig. 21.3	Karnak North	Early Ptolemaic (Complex IIB)
74?	Schreiber 2003: 118, No. 282	Thebes (Djehutymes)	3rd century
74	Poludnikiewicz 1992: Nos 9–10 (more elaborate rim and larger handles)	Athribis	First half of 2nd century
74	Dunham 1957: Fig. 67, No. 74 (bronze vessel)	Barkal	1st century
75	Aston 1999a: Pl. 91, No. 2437	Elephantine	3rd century
78	Dunand *et al.* 2013: Figs 180–181	‘Ain Dabashiya	Ptolemaic
78	Burton-Brown 1948: Fig. 2, 35/47	Tocra	3rd century?
78	Marchand 2007: Fig. 26 (miniature)	‘Ain Manawir	End 4th century
78	Rotroff 2006: Fig. 68, No. 531	Athens	110–50
78	Aston 1999a: Pl. 111, No. 2934	Elephantine	Early Ptolemaic
78	Dunham 1957: Fig. 136, No. 449 (dec.)	Barkal	?
79	Fakhry 1938: 399, Pl. 71a (different style dec.)	Bahariya	Late Ptol. – Early Roman?
79	Hawass 2000: 77, 79, 161 (different style dec.)	Bahariya	Late Ptol. – Early Roman?
81	Dunham 1957: Fig. 8, No. 49; Török 2011: Pl. 13 (bronze vessel with inscription – Demotic?)	Meroë	Early Ptolemaic
81	Dunand *et al.* 2013: Figs 159–160	‘Ain Dabashiya	Ptolemaic
82	Wuttmann *et al.* 1996: Group 11, No. 44	‘Ain Manawir	Persian Period
82	Dunand *et al.* 2013: Part 1, Figs 5–6, 17	El-Deir	Persian – Roman
83	Brones 2010: Figs 273, 377	El-Deir	Persian (4th century) – Roman
83	Ikram and Rossi 2007: Pl. 24a	‘Ain Dabashiya	Late Ptol. – Early Roman?
83	Michałowski *et al.* 1950: Fig. 198, No. 859 (miniature)	Edfu	Late Ptolemaic

Form	Parallels	Location	Date (BCE)
87	Hope 2004a: Fig. 5d (broad parallel)	Ismant al-Kharab	Late 2nd century CE?
88	Marchand 2007: Fig. 27 (black decoration on polished red slip)	Dush	3rd – 2nd century
88	Jacquet-Gordon *n.d.*: Figs 21.5, 21.6	Karnak North	Early Ptolemaic (Complex IIB)
88	Jaritz and Rodziewicz 1994: Fig. 12, No. 161 (green-fired marl)	Syene	Early Roman? (unstratified context)
89b	Sparkes and Talcott 1970: Fig. 14, No. 1727 (similar shape); No. 1734 ('pointed tail')	Athens	490–450
89b	Jacquet-Gordon *n.d.*: Fig. 21.9	Karnak North	Early Ptolemaic (Complex IIB)
89b	Myśliwiec 1994: Fig. 2 (painted decoration; 'pointed tail')	Athribis	2nd century
89b	Michałowski *et al.* 1950: Fig. 196, No. 852 (miniature; 'pointed tail')	Edfu	Late Ptolemaic
89b	Budka 2010: Fig. 177, Reg. 201 ('pointed tail')	Thebes	Ptolemaic
90	Marchand 2007: Fig. 34	Dush	End 4th – 3rd century
90	Brunton 1930: Pl. 41, No. 18	Qau	Ptolemaic
90	Brones 2010: Fig. 380	El-Deir	Ptolemaic – Early Roman?
90	Dunand *et al.* 2013: Figs 166, 172–173	'Ain Dabashiya	Ptolemaic?
91	Brones 2010: Fig. 276	El-Deir	Ptolemaic – Early Roman?
92	Brunton 1930: Pl. 41, No. 17	Qau	Ptolemaic
94	Marchand 2007: Figs 10–11	'Ain Manawir	5th century
96	Marchand 2007: Figs 12–13	'Ain Manawir	5th – 4th century
96	Marchand 2007: Fig. 17	'Ain Manawir	4th century
96	Wuttmann *et al.* 1996: Group 14, No. 52	'Ain Manawir	Persian Period
96	Dunand *et al.* 2013: Figs 174–175	'Ain Dabashiya	Ptolemaic
96	Marchand 2000b: Figs 5–6	'Ain Manawir	Dynasty XXIX
96	Aston 1999a: Pl. 106, No. 2799	Elephantine	3rd century
97	Marchand 2007: Figs 28–29	Kharga	End 4th century
97	Aston 1999a: Pl. 105, No. 2754	Elephantine	3rd century
97	Masson 2011: Figs 94–95	Karnak	Ptolemaic
97	Hope 2000: Fig. 6i	Karnak North	Ptolemaic?
98	Marchand 2007: Fig. 33 (Flask with similar rim)	'Ain Ziyada	Late 4th century
99	Aston 1999a: Pl. 84, No. 2271	Elephantine	4th century
100a	Aston 1999a: Pl. 92, No. 2468 (broadly similar)	Elephantine	3rd century
100c	Aston 1999a: Pl. 92, No. 2465; Pl. 93, No. 2495; Pl. 105, No. 2775	Elephantine	3rd century
101	Aston 1999a: Pl. 91, No. 2436	Elephantine	3rd century

APPENDIX 4

CATALOGUE OF PTOLEMAIC SITES IN DAKHLEH OASIS

Site		*Page*
01	33/390-E9-1	244
02	33/390-E9-2	245
03	33/390-F9-1/3A (Winlock's Site 3A)	246
04	32/390-E1-1	246
05	32/390-D2-2 (Bir Talata el-Mahoub)	247
06	33/390-F10-1	248
07	33/390-F9-1 (Dayr al-Haggar)	249
08	33/390-F8-1A	250
09	33/390-F10-4	251
10	33/390-F10-3	252
11	33/390-H6-2	253
12	33/390-H7-1 (Qaret el-Muzawwaqa)	254
13	33/390-L9-1 (Amheida)	254
14	33/390-K9-4	256
15	32/390-K1-1	257
16	32/390-I4-1	258
17	32/390-K4-1	259
18	32/390-I4-2	259
19	32/390-H5-1	260
20	32/390-I6-2	261
21	32/390-F7-1	262
22	32/405-A8-1	263
23	32/405-C7-2	264
24	31/405-D7-2	265
25	31/405-F6-1	266
26	31/405-F9-1 (Bir Shaghala)	268
27	31/405-F9-5	269
28	31/405-G9-2 (Tell el-Marqula)	270
29	31/405-G10-1 (Mut al-Kharab)	270
30	31/405-G9-3 (Humayat B)	271
31	31/405-H9-2	272
32	31/405-H10-1	272
33	31/405-H10-3	273
34	31/405-K10-4	274
35	31/405-K10-7	275
36	31/405-K10-3	275
37	31/405-K10-8	276
38	31/405-L10-1	277
39	31/405-L9-2	278
40	31/405-L10-2	279
41	31/405-L10-3	280
42	30/405-M1-1	280
43	31/405-M9-1 ('Ain al-Azizi)	282
44	31/405-L4-1	283
45	31/405-L4-2	284
46	31/405-M4-1	285
47	31/405-N3-1	286
48	31/420-B9-1	287
49	31/420-C9-1	288
50	31/420-B10-1 (Beit el-Qaresh)	288
51	31/420-D10-1	289
52	31/420-C5-1 (Kellis West Cemetery)	290
53	31/420-D6-1 (Ismant al-Kharab)	291
54	31/420-G6-4	294
55	31/420-G6-2 (Qasr el-Haleka)	294
56	31/420-H7-1	295
57	31/435-D3-2	296
58	31/435-G2-1/2 (Qila el-Dabba)	296
59	31/435-J4-2	297
60	31/435-L2-5	298
61	31/435-K3-1	299
62	31/435-K3-2	300
63	31/435-N3-1	300
64	31/435-P3-1	301
65	31/435-M4-1 (El-Qusur)	301
66	31/435-L4-1	302
67	31/435-K5-3	303
68	31/435-K5-2	303
69	31/435-K5-1 ('Ain Birbiyeh)	304
70	31/435-L6-1	305
71	31/435-N6-2	306
72	30/435-K1-5	307

01. 33/390-E9-1 (Group A)

LOCATION

The site is located approximately 1 km west-north-west of Dayr al-Haggar (Site 07), in an area of undulating stony ground (FIGURE 5.5).

DESCRIPTION

This site comprises a large sherd scatter measuring 300 m north-south by 125 m east-west, and the remains of mud-brick architecture, including a large area of contiguous mud-brick walls. Sub-surface preservation is up to 1.5 m deep. Four mud-brick buildings preserved above ground appear to be columbaria.

Test 1: Three contiguous rooms in the central part of the site were tested (FIGURE A4.1). Each room measures 4.5 x 2.15 m, with walls 58 cm thick. The rooms each have entrances on the south, while Rooms 1 has a doorway connecting it to Room 2, as well as another apparent entrance in the east wall. The walls of the rooms are mud-plastered. The fill comprised potsherds, mud-weights and fragments of red-painted plaster. A burnt area was noted in Room 1. Mud-weights and pots were found on the floor of Room 2.

Test 2: The southernmost columbarium was tested. It is likely that these columbaria relate to a later phase of occupation than the rest of the site, based on the fact that they are better preserved than the other buildings and that the pottery associated with them is of Early Roman date.

POTTERY (Numbers 785–786)

The pottery collected from the surface of the site and from within Test 1 largely appears to be Early Roman in date. Two sherds, **785**–**786**, recovered from the fill of Test 1 derive from large storage jars with modelled rims, of a type that is regularly encountered in the Ptolemaic Period (Form 65).

DATING

Based on the pottery the site appears to have been in use during the Early Roman Period and, due to the presence of two diagnostic sherds, possibly also during the Ptolemaic Period.

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Mills *F.N.* 1978: 15–16; 1979a: 176–177.

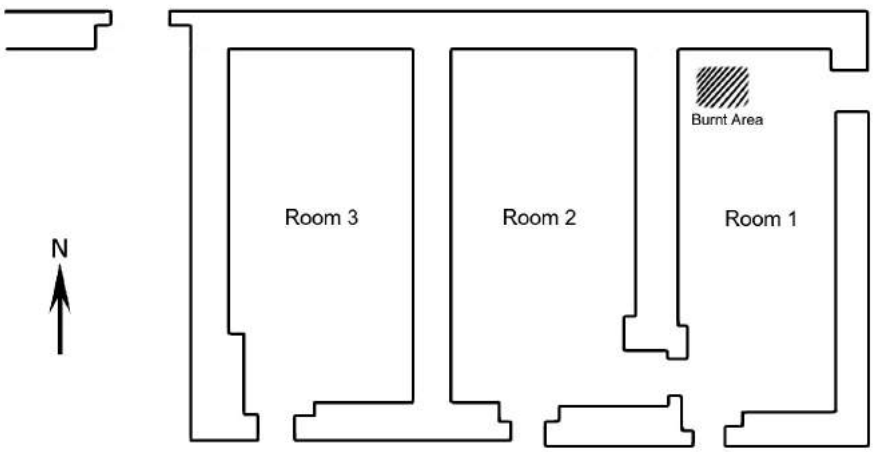


FIGURE A4.1 Site 01: Sketch plan of Test 1 (after Mills F.N. *1978: 16).*

02. 33/390-E9-2 (Group A)

LOCATION

The site extends for approximately 3 km north-south along a gebel outcrop; it is situated close to Sites 01, 03 and 04 (FIGURE 5.5).

DESCRIPTION

This is an extensive cemetery of approximately 1000–1500 tombs. The surface is littered with potsherds, whilst a fragment from a ceramic coffin with anthropoid features was also found on the surface. Many of the tomb entrances are visible. Seven tombs were tested and all had been badly disturbed. Demotic ostraka were retrieved from one tomb, although these have not yet been studied or translated.

Tomb 7: This tomb is located at the base of the gebel outcrop on the eastern side. It comprises a mud-brick structure of at least three rooms (FIGURE A4.2). Area A contained five bodies. Area B is vaulted and was not excavated. Area C contained a piece of pottery coffin and three *in situ* pots, but no burial remains. Area D appears to be a forecourt and contained nine pots. Areas E and F are not part of the tomb, but appear to be external areas; they also contained pottery vessels. The tomb appears to have originally comprised three rooms and a forecourt.

POTTERY (Numbers 787–789)

Pottery was recovered from the surface of the cemetery. Twenty complete vessels were found scattered in and around Tomb 7, as well as many fragmentary sherds. Most of the pottery from Tomb 7 appears to date to the Late Period; however, several vessels represent characteristic Ptolemaic types. The deep bowl with a modelled rim (**787**) is encountered during the Early Ptolemaic Period (Form 45), whilst Numbers **788** and **789** are cooking pots of a type regularly found in Ptolemaic contexts in Dakhleh (Form 67). Two complete kegs were also found (Hope 2000: 201, Fig. 6d), which are comparable to kegs of Ptolemaic date encountered elsewhere in Dakhleh (Form 96). The presence of these vessels might indicate reuse of the tomb during the Ptolemaic Period, although this is difficult to determine as the tomb has been disturbed.

DATING

The primary phase of use for this cemetery was during the Late Period, as evidenced by the ceramic remains. There is also some evidence for Ptolemaic activity at the site; however, it is unclear whether or not this is the result of tomb reuse.

BIBLIOGRAPHY

Mills *F.N.* 1978: 21–24.

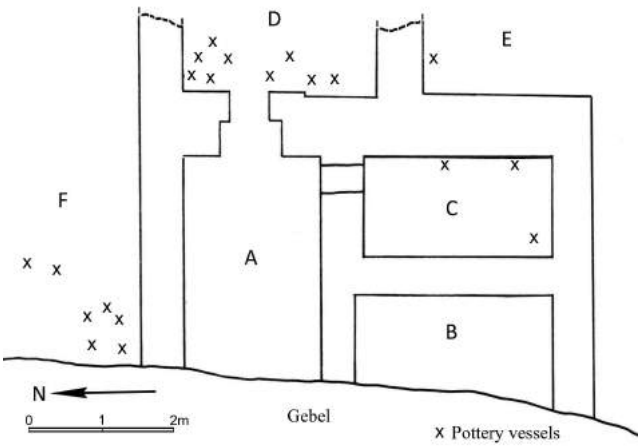


FIGURE A4.2 Site 02: Sketch plan of Tomb 7 (after Mills F.N. *1978: 21).*

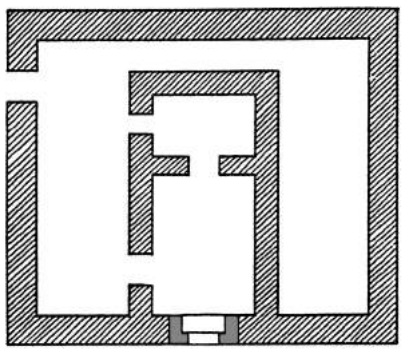


FIGURE A4.3 Site 03: Plan of the 'chapel' (after Winlock 1936: Pl. XIII).

03. Winlock's Site 3A (in 33/390-F9-1) (Group A)

LOCATION

This site is located in the middle of a large plain, approximately 1 km south-west of Dayr al-Haggar (FIGURE 5.5).

DESCRIPTION

This is a four-roomed mud-brick structure with a sandstone entrance measuring 13 x 11 m and preserved up to 2.5 m high (FIGURE A4.3). The building was identified by Winlock as a chapel. Winlock (1936: 34) noted that the sandstone threshold was *in situ*, while the ruined lintel and doorjambs were lying on the ground in front of the building. The lintel is decorated with a winged disk on a cavetto cornice. The remains of other mud-brick structures can be seen in the general vicinity and the surrounding surface is littered with potsherds.

POTTERY (Numbers 790–794)

A total of thirteen potsherds were collected from the surface in and around the chapel. Seven of these appear to be of Early Roman date while six are Ptolemaic. Particularly diagnostic is the cooking pot with horizontal loop-handles, **791** (Form 47), and the two jars with modelled rims, **793** and **794** (Forms 64 and 65).

DATING

The pottery indicates that activity took place at the site during the Ptolemaic and Early Roman periods. It is difficult to determine how the pottery relates to the use of the building, as the pottery could have originated from nearby structures, or from the chapel itself; however, the presence of several diagnostic Ptolemaic types is evidence for some kind of Ptolemaic Period activity in the area.

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Mills 1979a: 178; Winlock 1936: 34.

04. 32/390-E1-1 (Group A)

LOCATION

This site is located on a low rise 2 km south-west of Dayr al-Haggar (Site 07) (FIGURE 5.5).

DESCRIPTION

This is a settlement site measuring 135 m north-south and 90 m east-west, which is characterised by a dense surface scatter of potsherds, along with traces of mud-brick walls to the north and in an isolated area to the northeast. The surface is littered with storage bin fragments, grinding stones and irregular blocks of sandstone, while ovens and ash deposits can be seen in several places. General surface finds include stone vessels, glass beads, bronze coins, a bronze ring and fragments of a bronze vessel, a faience bowl and range of pottery. Two areas were tested.

Test 1: An area measuring 5 x 5 m was tested around one of the ovens (FIGURE A4.4). In addition to the oven, a ceramic storage bin was also found in situ (**795**). Finds included pottery, grinding stones and three ostraka.

Test 2: A complex of rooms in the northeast part of the site was tested (FIGURE A4.5). The central room (A) was cleared as well as a feature (B) immediately north of Room A. Room A measures 3.74 x 6.55 m. Finds included a bronze coin, a faience amulet, grinding stones, pottery and fifteen ostraka (14 Demotic, 1 Greek; not yet studied). This complex is severely deflated and only a single course of bricks remains.

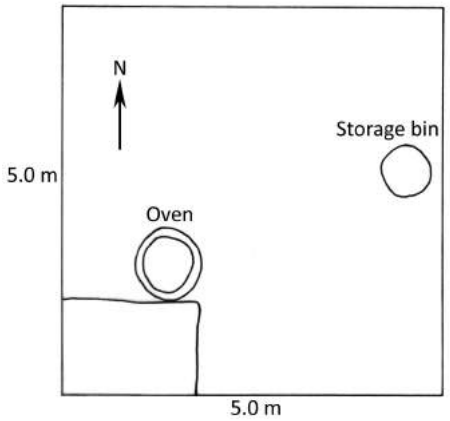


FIGURE A4.4 Site 04: Sketch plan of Test 1 (after Hope F.N. *1978: 66).*

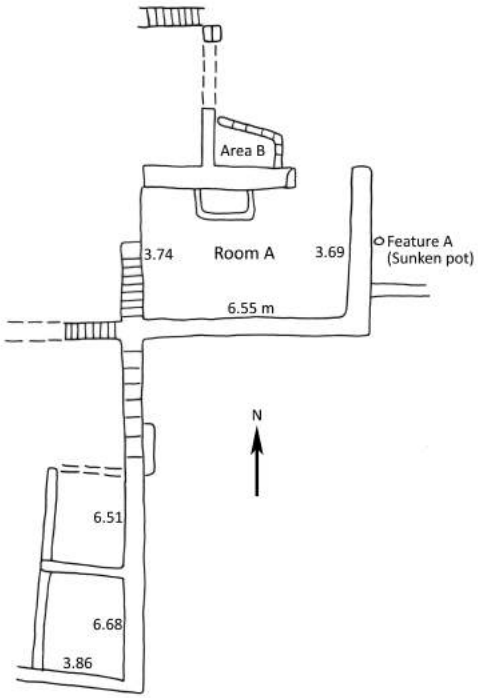


FIGURE A4.5 Site 04: Sketch plan of Test 2 (after Hope F.N. *1978: 72).*

POTTERY (Numbers 795–840)

Due to the deflated nature of the site, particularly in the area of the complex incorporating Test 2, the pottery from the test areas is essentially surface pottery. The depth of the tested areas is relatively shallow, which prevents any meaningful stratigraphy from being discerned. All of the pottery collected from the site can be assigned a Ptolemaic date. The pottery from both Test 1 and 2 comprises a range of diagnostic types, including cooking pots with horizontal handles, **816** and **817** (Form 47); large decorated jars with modelled rims, **829** and **831** (Forms 63–65); a miniature *askos* **824** (Form 89b); several kegs **838**–**840** (Forms 96–98); and necked cooking vessels **827** and **835** (Form 67).

The forms, fabrics and wares encountered in this assemblage all point clearly to a Ptolemaic date. The decoration encountered on **831** is characteristic of this period (CHAPTER 3), as are the red and black bands on cream-slip found on a body-sherd in Test 1 (not illustrated). The use of fabric B3 for cooking vessels is limited to the Ptolemaic and Early Roman Periods in Dakhleh and in this case the forms are Ptolemaic. Furthermore, the presence of a traditional Greek form, an *askos*, is also indicative of a Ptolemaic date.

DATING

All of the evidence points toward a Ptolemaic date for this site.

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Hope *F.N.* 1978: 67–77.

05. 32/390-D2-2 (Bir Talata el-Mahoub) (Group A)

LOCATION

This site is located almost 3 km south-west of Dayr al-Haggar and 600 m south of Site 04. It is situated in an area dotted with ancient irrigation systems and fossil spring mounds (FIGURE 5.5).

DESCRIPTION

The site comprises a dense scatter of bones and stone tools of Neolithic date and a cemetery of probable Late Period to Ptolemaic date. Some pottery was collected from around the tombs.

POTTERY (Numbers 841–842)

Most of the pottery recovered from the site appears to be of Late Period date, with the exception of two vessels that are probably Ptolemaic. One of these is a large cream-slipped jar with a modelled rim, **841** (Form 65f), while the other is a necked-jar with a single vertical handle and a modelled rim, **842**. Both vessels can be ascribed a Ptolemaic date. The original provenance of these vessels is unknown, but the fact that they were found in association with the tombs suggests that at least some of the tombs were in use during the Ptolemaic Period.

DATING

Based on the pottery, the cemetery appears to have been in use during the Late Period and Ptolemaic Period. There is also evidence for Neolithic activity in the vicinity.

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Mills 1979a: 169.

06. 33/390-F10-1 (Group A)

LOCATION

This site is located 500 m south of Dayr al-Haggar (Site 07) and is partly covered by a sand dune (FIGURE 5.5).

DESCRIPTION

This site comprises two groups of contiguous rooms that appear to be connected under a sand dune. The complex is predominantly constructed of *pisé* walls, with some mud-brick, and a storage bin and two ovens can be seen on the surface. Two areas were tested.

Test 1 : A small room, which contained only loose sand.

Test 2: A rectangular room defined by three external *pisé* walls and an internal mud-brick wall, which is not bonded to the external walls (FIGURE A4.6). A doorway in the mud-brick wall leads to another room. An area of ash was found at the northern end of the room. Sub-surface preservation is up to 1 m deep.

POTTERY (Numbers 843–846)

A small amount of pottery was collected from the surface of the site, including three Ptolemaic types. In particular, number **844** is characteristic of this period and is of a type found frequently at Mut al-Kharab, as well as at other Ptolemaic sites in the oasis (Form 67). In addition to the three vessels illustrated, the surface pottery also included body sherds with black decoration on a cream slip, which appear to be Early Roman in date. Two decorated sherds from mould-made vessels were also found on the surface. These appear to derive from imitation Knidian bowls and can be dated to the Late Ptolemaic or Early Roman Period (1st century BCE – 1st century CE) (Hope 1999: 232, Pl. 14.29; FIGURE 3.12.b). Furthermore, rim fragments from three kegs found amongst the surface material can also be dated to the 1st century BCE – 1st century CE (Gill *Forthcoming d*).

A single vessel, **846**, was found on the floor of Test 2. This type of handled cooking vessel is found exclusively within Ptolemaic Period contexts in the oasis (Form 47).

DATING

The pottery indicates that the site was occupied during the Ptolemaic Period, with a continuation into the Early Roman Period.

BIBLIOGRAPHY

Churcher and Mills 1999: 264; Gill *Forthcoming d*; Hollet *F.N.* 1978: 2; Hope 1999: 232; Mills 1979a: 182–183.

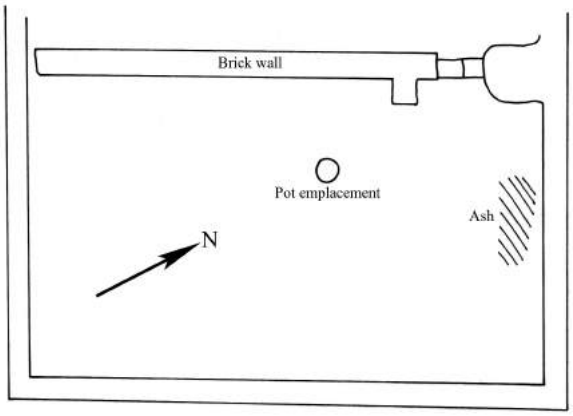


FIGURE A4.6 Site 06: Sketch plan of Test 2 (after Hollet F.N. *1978: 2).*

07. 33/390-F9-1 (Dayr al-Haggar) (Group A)

LOCATION

This site stands in the middle of a large plain (FIGURE 5.5).

DESCRIPTION

This is a sandstone temple surrounded by a mud-brick enclosure wall, which is in turn surrounded by the remains of a large settlement. The temple, which has been cleaned and restored by the DOP (FIGURE A4.7; Mills 1999b), apparently dates to the Roman Period as the decoration was completed during the reigns of Nero, Vespasian, Titus, Domitian and Hadrian (Kaper 1997: 19). For a detailed description of the temple, see Kaper (1997: 19–26). No excavation has taken place within the temple enclosure, apart from the clearance associated with the restoration work; therefore, it is unknown whether any earlier structures ever existed in this location (Kaper 1997: 23). Surrounding the temple enclosure is a series of extensive mud-brick domestic structures. Many of the tested rooms preserve hearths and storage areas. South of the main complex are three large buildings and two kilns. The surface of the site is scattered with sherds and other material remains.

Kiln 1: This kiln is constructed of mud-brick, and the base has been cut into the desert surface. The entrance is on the south. The interior diameter is 1.8 m. Pottery found associated with the kiln is Ptolemaic in date.

POTTERY (Numbers 847–853)

The surface pottery from around Kiln 1 includes six Ptolemaic vessels. Amongst these are a loop-handled cooking pot, **849** (Form 47); a necked cooking pot, **850** (Form 67); two deep bowls with characteristic cream-slip, **847** and **848** (Forms 30 and 31); a modelled rim from a large jar, **851** (Form 65); and a handled pitcher with black decoration, **852**. The fill from the kiln was disturbed and included a mixture of sand, mud-brick rubble and potsherds. A single sherd, **853**, was found at the bottom of the kiln. This is a rim sherd from a deep bowl that is cream-slipped, and which is a common Ptolemaic type (Form 31).

DATING

The ceramic evidence indicates that at least part of the settlement was in use during the Ptolemaic Period. Given that the surrounding region is littered with sites of Ptolemaic date, it is likely that this settlement formed part of a larger Ptolemaic community. The existing temple was decorated in the Roman Period, although we do not know whether it was built on top of an earlier structure. It is entirely possible that a Ptolemaic temple once stood here (cf. Kaper 1997: 23; CHAPTER 3).

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Hope *F.N.* 1978: 45–65; Kaper 1997: 19–26; Mills 1979a: 178; 1999b: 25.

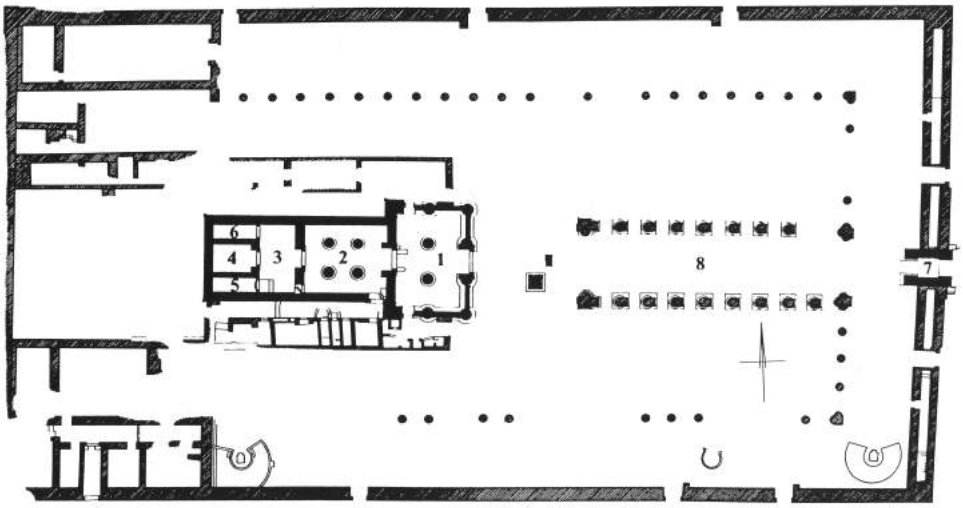


FIGURE A4.7 Dayr al-Haggar (Site 07): Plan of temple and temenos (after Mills 1999b: 26).

08. 33/390-F8-1A (Group A)

LOCATION

This site is located 1 km north of Dayr al-Haggar (Site 07). It is situated on a low mound in the centre of a plain, and also covers several smaller mounds to the east (FIGURE 5.5).

DESCRIPTION

This is a settlement site measuring 190 x 200 m, which is characterised by a dense sherd scatter and traces of mud-brick structures. The site is badly eroded. Features include storage bins, ovens and large areas of ash. Surface finds include sandstone bowls, ceramic animal figurines, stone vessel fragments, beads, bronze coins and a bronze ring (FIGURES A4.8 and A4.9). Overall, the site and the structures resemble 32/390-E1-1/ Test 2.

POTTERY (Numbers 854–867)

A total of sixteen diagnostic sherds were collected from the surface of the site. All of the pottery can be attributed a Ptolemaic date. The assemblage is domestic in nature and comprises a range of simple bowls in addition to several diagnostic Ptolemaic types. These include a cooking pot with horizontal loop-handles, **863** (Form 47d), and a necked cooking pot, **865** (Form 67), both in fabric B3, as well as a cream-slipped deep spouted vessel, **864** (Form 81). All three vessels are paralleled at Mut al-Kharab and other Ptolemaic sites in the oasis and are diagnostic Ptolemaic types. The range of bowls represented here, **854–862**, are also common Ptolemaic types (e.g. Forms 9, 11, 15 and 27). The fact that many of the vessels in this assemblage are cream-slipped also points to a Ptolemaic date. Finally, the function of two peculiar vessels, **866** and **867**, is unknown, but they could be interpreted as some form of stand. They bear some resemblance to the 'fire-dogs' found at Elephantine, which may have been used to support cooking vessels, or could have had some association with bread making (Aston 1999: 228). Such vessels are common in domestic contexts dating from the Middle Kingdom through to the Ptolemaic Period.

DATING

The ceramic evidence points to a Ptolemaic date for this site. There is no indication that the site was occupied during any other period.

BIBLIOGRAPHY

Hope *F.N.* 1978: 91–95.

09. 33/390-F10-4 (Group A)

LOCATION

This site is located 500 m south-south-east of Dayr al-Haggar (Site 07) and 200 m west of Site 10 (FIGURE 5.5).

DESCRIPTION

This is a habitation site comprising three small ovens and traces of mud-brick walls, as well as a surrounding sherd scatter. The presence of a cooking vessel indicates that food preparation took place at the site, which is also demonstrated by the presence of ovens.

POTTERY (Numbers 868–869)

Only four diagnostic sherds were collected from the surface of this site. Of these, two appear to be of Early Roman date, while the other two are Ptolemaic types. The cooking pot with horizontal loop-handles, **868**, is a characteristic Ptolemaic form (Form 47d), which is quite common within Ptolemaic assemblages at Mut al-Kharab and at other oasis sites. The short-necked jar, **869**, is also a characteristic type (Form 63), with its modelled rim and cream-slip both evidence for a Ptolemaic date.

DATING

Although the sample collection is small, the presence of two diagnostic Ptolemaic sherds on the surface of the site suggests that it might have been occupied during this period. Evidently, the site continued to be occupied into the Early Roman Period.

BIBLIOGRAPHY

Churcher and Mills 1999: 265.

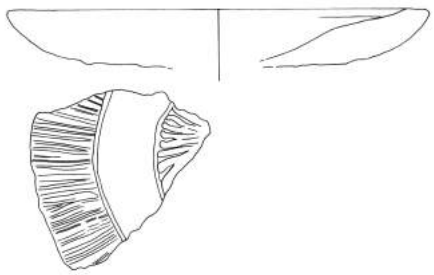


FIGURE A4.8 Site 08: Fragment of a slate bowl from the surface (scale 1:4) (after Hope F.N. *1978: 94).*

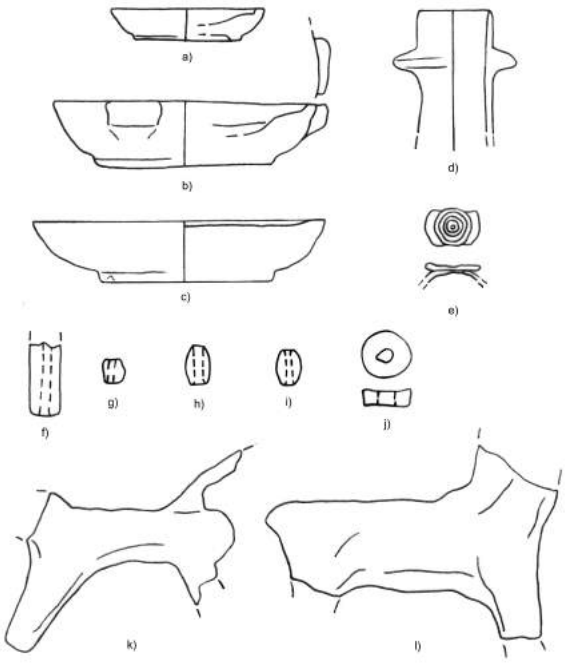


FIGURE A4.9 Site 08: Miscellaneous objects from the surface; (a–c) Sandstone bowls (scale 1:10); (d) Alabaster vessel rim (scale 1:2); (e) Bronze ring (scale 1:2); (f–h) Carnelian beads (scale 1:2); (i) Ivory bead (scale 1:2); (j) Green glass bead (scale 1:2); (k–l) Ceramic animal figurines (scale 1:2) (after Hope F.N. *1978: 92, 98).*

10. 33/390-F10-3 (Group A)

LOCATION

This site is situated 500 m south-south-east of Dayr al-Haggar (Site 07) and 200 m east of Site 09 (FIGURE 5.5). It is situated on top of a small rock outcrop in the middle of a plain.

DESCRIPTION

This is a small settlement site measuring 40 x 100 m, which comprises a large mud-brick complex and a cemetery, along with a surface scatter of sherds and grindstones (FIGURE A4.10). At least ten rectangular vaulted mud-brick tombs are located on the north side of the hill in an area measuring 30 x 15 m. These are oriented east-west. One tomb was tested (Test 1). The large mud-brick complex is located 40 m to the southeast of the tombs. Traces of the walls can be seen on the surface and ten or more rooms can be distinguished. The building was tested in order to determine the degree of subsurface preservation (Test 2). At the southwest end of the complex are four irregular depressions marked on the surface by a scatter of bone. One of these was tested (Test 3).

Test 3: This is an irregular pit measuring approximately 2 x 1.4 m, which contained the articulated body of a bovid. The body was buried close to the surface and was found lying on its back, apparently with its feet tied together. Three ostraka were found at burial level, while others were found down to 90 cm below the body. A total of 30 Demotic ostraka were recovered from the pit along with a range of other sherds; unfortunately, the ostraka have not yet been studied. The total depth of the pit is 1.25 m.

POTTERY (Numbers 870–881)

The pottery recovered from the fill of Test 3 (**870**–**878**) is entirely Ptolemaic in date. The assemblage largely comprises deep bowls, **872**–**876** (Forms 27, 29–32), some with modelled rims and all but one cream-slipped. One vessel, **875**, also has a red rim-band. Also in the assemblage is a necked jar with a modelled rim, **877**, which is a typical Ptolemaic type (Form 67), and a flask, **878**, that is thus far unparalleled in the oasis, but for which the decoration points to a Ptolemaic date.

In addition to the pottery illustrated, two pieces from large coarse platters (fabric A4/ ware P4) were also found. These have a rim diameter of approximately 40–50 cm. A number of miscellaneous body sherds in a range of wares were also collected; the wares represented are Pla, P9, P21 (dense), Sc1, Sr1, and Dc1 (with faint brown decoration). These are all consistent with a Ptolemaic date for the assemblage.

Approximately ten diagnostic sherds were collected from the surface of the site, including three characteristic Ptolemaic types (**879**–**881**). In particular, the deep cream-slipped bowl, **881**, is comparable to the bowls found in Test 3 (Form 32), while the shallow dish with the modelled rim, **879**, is a diagnostic type found in Ptolemaic assemblages at both Mut al-Kharab, as well as in the Nile Valley (Form 4c). Also noted were fragments from several kegs in wares P1a and P9, a rim from a deep bowl (ware Sc1) and a rim from a shallow bowl or lid (ware Sc1), all of which are consistent with a Ptolemaic date. A handle from an amphora (ware P12) was also found, although this is difficult to date due to the lack of comparative material from other oasis sites. No diagnostic pottery from other periods was noted.

DATING

The surface pottery is all datable to the Ptolemaic Period, which indicates that the site was occupied during this period. The cow burial (Test 3) was clearly deposited during the Ptolemaic Period. It is unclear whether the tombs and the mud-brick complex were also in use during this period as no Ptolemaic pottery was collected from Tests 1 or 2.

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Mills *F.N.* 1978: 27; 1979a: 178–179.

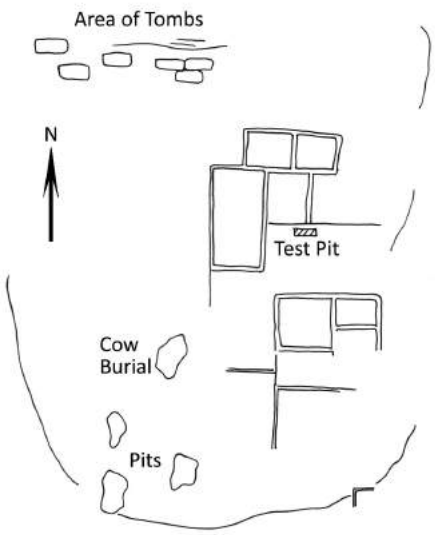


FIGURE A4.10 Sketch plan of Site 10 (after Mills F.N. *1978: 27).*

11. 33/390-H6-2 (Group B)

LOCATION

This site is located 1.5 km north of Site 12. It is situated in a rocky plain, which is surrounded by modern cultivation (FIGURE 5.6).

DESCRIPTION

This is a settlement comprising eleven mud-brick columbaria, which extend across the plain for a distance of approximately 1.5 km. Each building consists of several vaulted rooms surmounted by a pigeon loft. One building was tested. This was situated within a rectangular courtyard, which also contained a stable and several other structures. Pottery was collected from the surface of the tested building.

POTTERY (Numbers 882–884)

In general, the pottery apparently resembles that of Site 04 (32/390-E1-1). The diagnostic types that have been collected are predominantly Early- to Late Roman in date; however, there are three vessels that can be dated to the Ptolemaic Period (**882**–**884**). Two of these are deep bowls with modelled rims, **882** and **883**, which are types that are regularly found in Ptolemaic and Early Roman contexts (Forms 32 and 43). More convincing evidence for a Ptolemaic phase of occupation is the presence of several body sherds from a large cream-slipped jar with black/grey decoration (ware Dc1). The decoration consists of a floral motif, with leaves projecting from either side of a central stem (cf. FIGURE 3.5.d–h). Additionally, the cooking pot with horizontal loop-handles, **884**, is a particularly diagnostic Ptolemaic type (Form 47). Similar vessels with vertical handles were also found amongst the surface pottery; however, in Dakhleh, such vessels appear to have only been used during the Roman Period, whereas those with horizontal handles are characteristic of the Ptolemaic Period. Other potential Ptolemaic vessels include several kegs with simple out-folded rounded rims (wares P1a and Sc2), which are commonly found in both Ptolemaic and Early Roman assemblages in the oasis (cf. Form 94).

DATING

An analysis of the surface pottery indicates that the site was occupied during the Ptolemaic, Early Roman and Late Roman periods. It is unclear to which of these phases the columbaria belong; they were initially assumed to be Roman, although it is possible that they were constructed earlier than this.

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Mills 1979a: 179.

12. 33/390-H7-1 (Qaret el-Muzawwaqa) (Group B)

LOCATION

This site is located 1.5 km south of Site 11 (FIGURE 5.6). It is situated on three adjacent rock outcrops and a low escarpment.

DESCRIPTION

This is a cemetery of around 500 rock-cut tombs, heavily plundered. The surface is littered with human and animal skeletal remains as well as potsherds. Two well-preserved painted Roman tombs are also located here (cf. Osing 1982: 70–101; Whitehouse 1998).

There is also a ruined mud-brick building located about 150 m to the east of the painted tombs, in which a cache of 29 Demotic ostraka was found (Nur-el-Din 1982: 103). The ostraka date to the late Ptolemaic Period and comprise receipts and orders for payment associated with the administration of a temple (Nur el-Din 1982). The exact location of this temple is unknown, although it might be identified as the temple at Amheida (Site 13), or alternatively an earlier temple at Dayr al-Haggar (Site 07). Due to the close proximity of both of these sites, either interpretation is possible.

An additional find of interest is a limestone icosahedron inscribed in Demotic with twenty divine names, discovered at the site in the 1980s, although the exact find spot is unknown. The icosahedron was examined and published by Martina Minas-Nerpel (2007) who proposed a possible date of 1st or 2nd century CE (Minas-Nerpel 2007: 141). No exact parallels for this object were identified, although similar objects are known from Ptolemaic and Roman Egypt (Minas-Nerpel 2007: 144–145), and it is entirely possible that this object is of Ptolemaic origin given the presence of other Ptolemaic material at the site.

POTTERY (Numbers 885–891)

A total of ten sherds were collected from the surface of the site, all of which are diagnostic Ptolemaic types (**885**–**891**), apart from the short-necked jar, **887**, which is a common Late Period form that appears to have continued in use during the Early Ptolemaic Period. The other vessels are characteristic Ptolemaic types; in particular, the cooking pot with horizontal loop-handles, **888** (Form 47); the deep spouted vessel, **886** (Form 81); and the handled jar, **891** (Form 71), of which three examples were collected. The two jars, **889** and **890**, and the deep bowl, **885**, also have parallels amongst other Ptolemaic assemblages (Forms 31, 65 and 67). In addition to these sherds, a body sherd from a large decorated jar was also collected (Dc1 ware). The preserved decoration consists of a horizontal frond motif in black on a cream-slip background, which is consistent with Ptolemaic painted decoration in the oasis (cf. FIGURE 3.5).

DATING

Based on the surface pottery, the cemetery appears to have primarily been in use during the Ptolemaic Period. It continued to be used into the Early Roman Period, as evidenced by the painted tombs. The function of the mud-brick building located to the east of the tombs is unclear; the cache of ostraka was probably deposited during the Late Ptolemaic Period.

BIBLIOGRAPHY

Aufrère *et al.* 1994: 122; Mills 1979a: 179–180; Minas-Nerpel 2007; Nur-el-Din 1982; Osing 1982: 70–101; Whitehouse 1998.

13. 33/390-L9-1 (Amheida; *Trimithis*) (Group C)

LOCATION

This site is located in a long north-south plain, which is dotted with fossil spring mounds and surrounded by modern cultivation. Sites 14 and 15 are located less than 1.5 km to the south (FIGURE 5.7).

DESCRIPTION

This is a large settlement site measuring 1500 m north-south and 750 m east-west, which comprises domestic buildings, a temple, kilns, an industrial area, a mud-brick pyramidal tomb structure and associated cemeteries (Sites 14 and 15) (FIGURE A4.11).

The temple is largely destroyed and the evidence for it comes primarily from isolated blocks (Davoli 2012: 263–267; Davoli and Kaper 2006; Davoli and Kaper in Bagnall *et al.* 2015: 105–111). It appears to have been constructed in Dynasty XXVI and subsequently rebuilt in the Roman Period (Kaper 2012b: 169–172; Kaper in Bagnall *et al.* 2015: 46–56), and there is also evidence for an earlier shrine dating to the Third Intermediate Period (Kaper 2012b: 169). Carved stone door jambs from a temple dedicated to Thoth, which were found built into a house at the nearby site of El-Qasr and are thought to be from the Amheida temple, were originally dated stylistically to the Ptolemaic Period but are now dated to the Late Period (Dynasties XXV/XXVI) (Davoli and Kaper 2006: 13). So far there are no inscribed blocks of Ptolemaic date, apart from a small block with Demotic writing from the temple area, which is possibly Ptolemaic (O. Kaper pers. comm. 2011). An animal necropolis has also been discovered in the area of the ruined temple, which might be of Late Period or Early Ptolemaic date. This comprises numerous burials of birds, including raptors and ibises, which were sealed in simple pottery coffins (Davoli 2012: 266–267; Davoli in Bagnall *et al*. 2015: 57–60).

A number of Demotic ostraka dating to the Ptolemaic Period have also been discovered at the site (Bagnall and Ruffini 2012). These include Nos 389–393 from Area 1.3, Nos 198 and 278 from Area 2.1, Nos 280, 305, 378, 384, 385 and 427 from Area 4.1, and Nos 315, 422 and 428 from Area 4.2; Nos 278, 280 and 315 are dated to the late Ptolemaic Period, whilst the remainder are dated to the Ptolemaic or Early Roman Period (Bagnall and Ruffini 2012, Table on pages 61–73). These ostraka comprise receipts and orders for payment, which relate to the administration of the temple. Two of them preserve the dates 'year 15' (Number 315) and 'year 32' (Number 278); the latter probably corresponds to Ptolemy VIII or IX (Bagnall and Ruffini 2012: 172–174, 188–190).

POTTERY (Numbers 892–897)

A sample of pottery was collected from the surface of Amheida and the adjacent cemetery (Site 14, 33/390-K9-4). This consists largely of Roman types, although six sherds may be of Ptolemaic date (**892**–**897**). In particular, the small double-gourd, **895**, is regularly found in Ptolemaic contexts at Mut al-Kharab and other oasis sites, as is the necked jar, **896**, and the handled jar, **897**. The spouted vessel, **893**, could be Ptolemaic or Roman in date. In addition, excavations in the area of the ruined temple (Area 4.2) have revealed a range of pottery from amongst the fill. This apparently includes Ptolemaic types (Pyke 2006: 49), although much of the pottery remains to be studied in detail (Bagnall *et al.* 2015: 38, n.2).

DATING

There is clearly evidence for a Ptolemaic phase of occupation at the site, but this is largely obscured by the subsequent Roman occupation. The majority of the visible surface remains date to the Roman Period; however, the site was clearly occupied much earlier than this, as there is evidence from the temple dating to the Third Intermediate Period and Late Period. We can postulate the existence of a temple at the site during the Ptolemaic Period, based on both the pottery and ostraka; however, it is not yet clear whether the temple was embellished at all by the Ptolemies.

BIBLIOGRAPHY

Bagnall *et al.* 2015; Bagnall and Ruffini 2012; Churcher and Mills 1999: 263; Davoli 2012; Davoli and Kaper 2006; Kaper 2012b; Mills *F.N.* 1979b: 42–44; Pyke 2006.

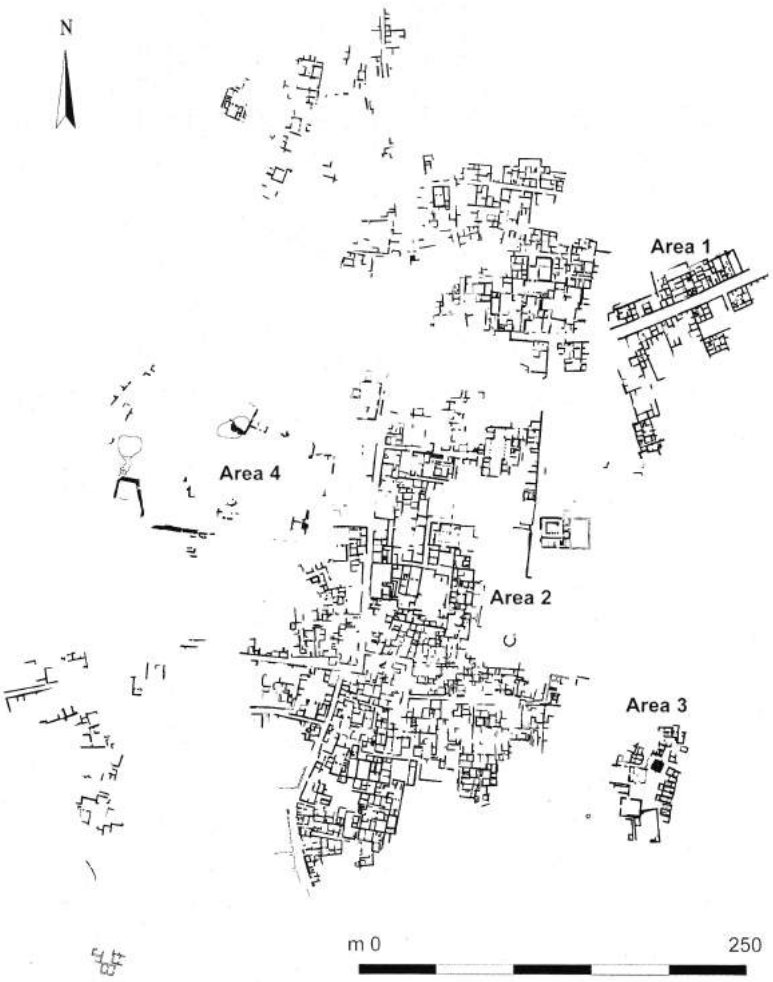


FIGURE A4.11 Amheida (Site 13): General plan (after Davoli 2012: 264).

14. 33/390-K9-4 (Group C)

LOCATION

This site is located at the southern edge of Amheida (Site 13). It covers a series of hills, which are separated by flat ground (FIGURE 5.7).

DESCRIPTION

This is a cemetery of around 3000–4000 tombs, which occupies an area measuring 1200 m north-south and 800 m east-west. It is characterised by a sherd scatter and traces of mud-brick structures, some of which appear to be non-funerary. The tombs are all located on high ground. The surface sherd scatter continues from Amheida (Site 13) across the northern part of this site. Four main tomb types can be recognised:

Type 1: Simple rectangular pits (Tombs 1 and 2).

Type 2: Rectangular, mud-brick vaulted chambers (Tombs 4 and 5).

Type 3: Above ground, multi-roomed, vaulted and decorated tombs (Tomb 3).

Type 4: Stone-built tomb structures (Tomb 6).

Tomb 3 was initially dated to the Late Ptolemaic or Early Roman Period based on a stylistic analysis of the painted decoration, which comprises typical Egyptian funerary scenes without any obvious Classical influence (Mills 1980a: 270); however, the chinking sherds from the vault appear to be of Early Roman date, which indicates that the tomb was not constructed before then.

POTTERY (Numbers 892–897)

Surface pottery was collected from this site together with the adjacent site of Amheida (Site 13). The majority of this pottery is Roman in date; however, six potential Ptolemaic types can be recognised (**892–897**; see Site 13 entry for details).

DATING

Whilst the surface pottery indicates that the cemetery was in use during the Ptolemaic and Roman periods, none of the tested tombs can be dated specifically to the Ptolemaic Period.

BIBLIOGRAPHY

Mills A. J. 1980a: 262, 270; Mills *F.N.* 1979b: 17–19; Frey *F.N.* 1979: 25–29.

15. 32/390-K1-1 (Group C)

LOCATION

This site is located on the side of a spring mound, approximately 1.5 km south of Amheida (Site 13) (FIGURE 5.7).

DESCRIPTION

This is a cemetery of around 100–150 vaulted mud-brick tombs, which have been plundered. Two tombs were excavated. The proximity of the site to Amheida (Site 13) suggests that the two are connected.

Tomb 1: A small single-chambered tomb with a vaulted ceiling. Two unadorned stone coffins were found inside. No pottery was recorded.

Tomb 2: An above ground tomb located at the base of the hill at the southwest end. This rectangular mud-brick tomb measures 6 x 6 m and comprises three vaulted rooms with packed-mud floors (FIGURE A4.12). The outside walls are 65 cm thick, while the inside walls are 40 cm thick. The main entrance (97 cm wide) is on the south and opens into Room 1, which is a long narrow room (4.7 x 1.75–1.94 m) with a doorway in the west wall. This doorway leads to Room 2 and is fitted with a stone door socket designed to hold a wooden door pivot.

Room 2 (2.75 x 2.36 m) contained the skeletal remains of six individuals, one of which was in an unbaked-mud coffin. There was also a considerable amount of cloth matting associated with these individuals. Finds included a preserved food offering, in the form of a round cake or loaf, as well as a large number of pottery vessels. A doorway in the north wall of Room 2 leads into Room 3. Room 3 (1.55 x 2.30 m) contained the skeletal remains of at least nine adults, along with cloth matting and pottery vessels.

POTTERY (Numbers 898–932)

The pottery from Tomb 2 was previously published by Hope (1980: Pls XXII–XXIV), who dated it as Roman, although it has since been recognised as Ptolemaic (cf. Hope 1999: 230). This pottery has many parallels with the Ptolemaic material from Mut al-Kharab, with the addition of a few types that are not attested anywhere else within the oasis. In particular, the deep bowls with modelled rims, **898–903**, **907**, **911**, and **922–925**, are diagnostic Ptolemaic types (Forms 29–32), as are the spouted vessels, **904**, **914** and **915** (Forms 81, 84 and 85). The two-handled spouted vessel, **927**, is not attested elsewhere in Dakhleh, but the style and execution of the decoration is consistent with a Ptolemaic date, and a possible parallel can be found in Kharga (Marchand 2007: Fig. 27). Likewise, the decorated body sherd, **905**, found in the fill above the tomb is also clearly Ptolemaic in date based on the style of the decoration (cf. CHAPTER 3). The squat jars, **912**, **913** and **926**, are not encountered at Mut al-Kharab, but are found at four other sites (Sites 30, 42, 52 and 56), also within tomb contexts, which suggests that this type has a funerary-related function (Forms 51 and 52). The miniature amphorae, **909** and **928**, are not attested elsewhere in Dakhleh, but are paralleled in Kharga (Wuttmann *et al.* 1998: Fig. 68.a). The double gourd, **910**, from Room 1 is also a standard Ptolemaic type (Form 56). Number **917**, an elongated jar that is broken at the neck, is interesting as similar vessels have been found at El-Deir (Dunand and Lichtenberg

2003: 4, Pl. 7) and 'Ain el-Dabashiya (Dunand *et al.* 2013: Fig. 167) in Kharga, which are broken in the same way. The two-handled jars, **929** and **930**, are also paralleled within Ptolemaic contexts elsewhere in the oasis (Form 75).

In general, the range of forms, the surface treatments, and the few examples of decoration all point to a Ptolemaic date for this assemblage. Almost half of the vessels are cream-slipped, which is consistent with other Ptolemaic assemblages in Dakhleh. Interestingly, many of the vessels are coated with a black resinous substance, sometimes with pieces of linen or fibre adhering (e.g. **906**, **911**, **913**–**915**, **917**, **920**–**922**, **925**, **926**, **930**, **932**). This probably indicates that these vessels were used during mummification and that they were deposited within the tomb once the process was complete.

DATING

The Tomb 2 burials were clearly deposited during the Ptolemaic Period, and it is likely that the tomb was also constructed at this time. It is unclear whether the cemetery was used during any other period.

BIBLIOGRAPHY

Churcher and Mills 1999: 260; Frey *F.N.* 1979: 19–23; Hope 1980; 1981: 237; Mills *F.N.* 1979b: 20; Mills A. J. 1980a: 265–266.

16. **32/390-I4-1** (Group D)

LOCATION

This site is located 650 m north of Site 18 and approximately 2 km west of Site 17 (FIGURE 5.8). It is situated on top of a small fossil spring mound within the midst of sand dunes.

DESCRIPTION

This site comprises a sherd scatter of approximately 180 m^2 with traces of mud-brick walls. There are also fragments of ceramic storage bin on the surface. Initially it was unclear whether this was a habitation or a cemetery site although the former is more likely based on the presence of cooking vessels amongst the surface pottery.

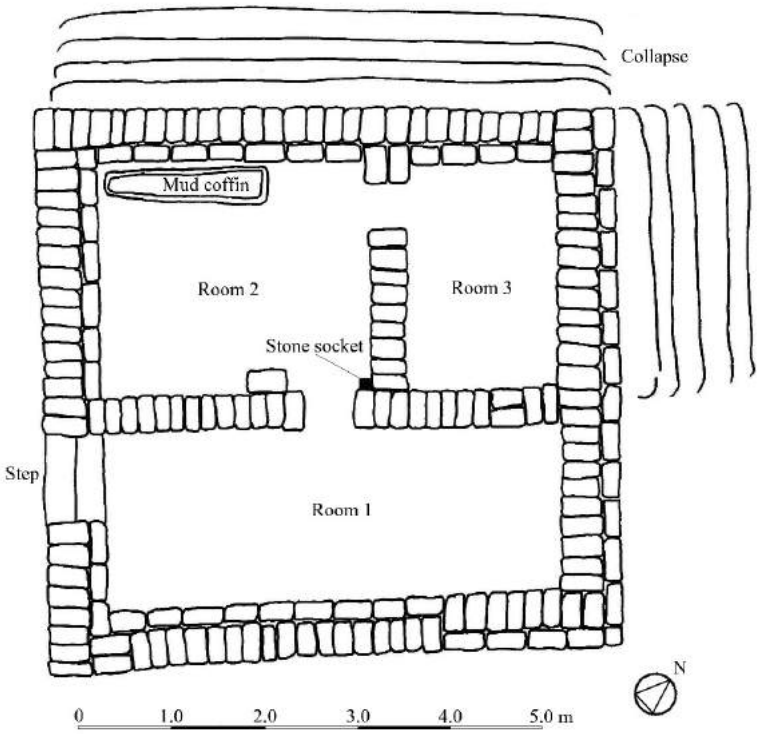


FIGURE A4.12 Site 15: Sketch plan of Tomb 2 (after Frey F.N. *1979: 22).*

POTTERY (Numbers 933–934)

Only three diagnostic sherds were collected from the surface of the site. One of these might be Early Roman in date, whilst the other two are clearly Ptolemaic. In particular, the cooking pot with horizontal loop-handles, **933**, is a characteristic Ptolemaic type (Form 47), whilst the other vessel, **934**, is also a common Ptolemaic form that appears to have been used for cooking (Form 67). In addition to these diagnostic sherds, a heavily-eroded body sherd from a keg was also recovered.

DATING

The surface pottery indicates that the site was occupied during the Ptolemaic Period and potentially during the Early Roman Period. This dating is not certain as it based on the analysis of only three sherds.

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Mills A. J. 1980a: 264.

17. **32/390-K4-1** (Group D)

LOCATION

This site is located approximately 2 km east of Site 16 (FIGURE 5.8). It is situated on a low rise, which is completely surrounded by modern cultivation.

DESCRIPTION

This is a cemetery comprising several vaulted multi-roomed mud-brick tombs. These tombs appear to be undisturbed. At some point the cemetery was overbuilt by a small farmstead. One tomb was tested.

Tomb 1: Only one room was tested. The room included eight burials, all in ceramic coffins, as well as some intact pottery vessels (Mills 1980a: Pl. XVc). The tomb appears to have been reused at some point; however, it is difficult to determine which features are the results of such reuse. This is made more difficult by the fact that only one room was excavated.

POTTERY (Numbers 935–937)

A range of pottery was found in Tomb 1, including some intact vessels which are of Late Period date. Three diagnostic sherds of Ptolemaic date were also discovered (**935**–**937**). The deep bowl, **935**, is a common Ptolemaic form (Form 35), and the fact that it is cream-slipped also points to such a date. The small gourd, **936**, is difficult to identify precisely as it lacks a rim, although it may have been comparable to Form 56. The fabric of this vessel (B1) is regularly encountered within both Late Period and Ptolemaic Period assemblages. The necked jar, **937**, is also a common Ptolemaic form (Form 67e), which is usually made from shale-rich fabric (B3) and appears to have been used for cooking.

DATING

Based on the pottery, Tomb 1 appears to have initially been constructed and used during the Late Period and then disturbed and reused in the Ptolemaic Period. The site was subsequently built over at some point during the Medieval Period.

BIBLIOGRAPHY

Mills A. J. 1980a: 266–267; Keall *F.N.* 1980: 43–44.

18. **32/390-I4-2** (Group D)

LOCATION

This site is located approximately 1.4 km north of Site 20 and 650 m south of Site 16 (FIGURE 5.8). It is situated within a wide flat area, which is partly covered by sand dunes.

DESCRIPTION

This is a habitation site comprising a complex of mud-brick buildings. A dense sherd scatter extends for 20 m around the complex, including some complete pots. One building was tested.

Test 1: A building of twelve rooms measuring 19 x 17 m (Mills 1980a: Pl. XVb). The rooms appear to have originally been vaulted. The entrance is on the west and mud-plastered floors are evident in places. Room 7 contained an oven and a storage bin. The average brick size is 35 x 18 x 10 cm.

POTTERY (Numbers 938–943)

A small amount of surface pottery was collected, including six Ptolemaic types (**938**–**943**). The small bowls, **939**–**941**, are types that are regularly found in both Ptolemaic and Early Roman Period contexts (Forms 24 and 38). The wide bowl, **938**, has parallels in the Ptolemaic assemblage from Mut al-Kharab (Form 12), and like this example they are often red-slipped. Particularly diagnostic is the cooking vessel with two horizontal loop-handles, **942**, made in fabric B3, which is a characteristic Ptolemaic type (Form 47). Number **943** might be identified as a double-gourd comparable to Form 56, although this example is much larger than is usually encountered. A few sherds of Early Roman date were also collected.

DATING

An analysis of the surface pottery indicates that the site was occupied during the Ptolemaic and Early Roman periods.

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Frey *F.N.* 1979: 57–61; Mills A. J. 1980a: 264.

19. **32/390-H5-1** (Group D)

LOCATION

This site is located approximately 1 km west of Site 20. It is situated on top of a yardang in an area covered by sand dunes (FIGURE 5.8).

DESCRIPTION

This site comprises a single mud-brick building with eight or more rooms, which stands on top of a yardang (FIGURE A4.13; Mills 1980a: Pl. XVa). There is a scatter of sherds around the structure. The top of the yardang is 2.9 m above the surrounding plain and it may actually represent the original ground level at the time of construction.

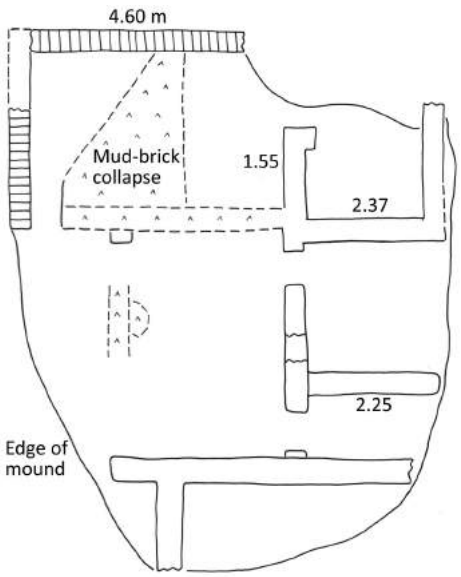


FIGURE A4.13 Site 19: Sketch plan (after Haynes F.N. *1979: 14).*

The building has been constructed in the standard 'header/stretcher' method. Average wall width is 40 cm and the average brick size is 40 x 17 x 9 cm. Some of the pottery found in the fill of the structure apparently joins with pottery from the site 32/390-H5-2, which surrounds the yardang and which comprises a surface scatter of stone tools and potsherds. This scatter of artefacts may represent the original extent of Site 19, which has been obscured as the surface has eroded away.

POTTERY (Numbers 944–947)

Approximately twenty diagnostic sherds were recovered from the fill of the structure. Four of these can be dated to the Ptolemaic Period (**944**–**947**), while the remaining sherds are of Roman date. The deep cream-slipped bowls, **944** and **945**, have many parallels amongst the Ptolemaic assemblage from Mut al-Kharab (Forms 29 and 35), as does the necked cooking pot, **947** (Form 67). The spouted vessel, **946**, is also regularly found in Ptolemaic contexts elsewhere in the oasis (Form 84), although such vessels are usually made in fabric A1a and are often cream-slipped, whereas this vessel is made in fabric B15. As fabric B15 is occasionally used for other types of Ptolemaic vessels, this vessel can still be ascribed a Ptolemaic date.

DATING

The presence of both Ptolemaic and Roman pottery within the fill of the building indicates that it was probably originally constructed during the Ptolemaic Period and continued to be used during the Roman Period. The surrounding site 32/390-H5-2 was initially in use during the Neolithic Period and appears to have been part of Site 19 during the Ptolemaic and Roman periods.

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Haynes *F.N.* 1979: 13–14; Mills A. J. 1980a: 255, 264.

20. 32/390-I6-2 (Group D)

LOCATION

This site is located approximately 1 km east of Site 19 and 1.4 km south of Site 20 (FIGURE 5.8). It is surrounded on the north and west by modern cultivation and on the east and south by sand dunes.

DESCRIPTION

This is a habitation site comprising two mud-brick building complexes about 100 m apart and a sherd scatter 150 m in diameter. The east complex measures 29 x 27.5 m and consists of twenty major rooms with smaller areas in between. Some vaulting is preserved in places. An additional nine to ten irregular enclosures are located on the south side of the complex. These are probably either animal pens or storage areas, or they may relate to a later phase of occupation. The east complex was tested (FIGURE A4.14).

Test 1: A rectangular room measuring 3.75 x 2.50 m, which is located on the west side of the complex. There was originally a doorway in the northwest corner, but this has been blocked with mud-bricks. The walls measure 60–70 cm wide and are preserved up to 40 cm high. The fill comprised sand, mud-brick rubble and potsherds.

Test 2: A room to the northwest of Test 1. A cache of Demotic ostraka was found in the upper fill (these have not yet been studied).

POTTERY (Numbers 948–950)

A total of twenty-five potsherds were collected from the surface of the site. The majority of these appear to range in date from Early to Late Roman; however, three sherds may be dated to the Ptolemaic Period (**948**–**950**). Two examples of deep bowls were found, **948** and **949**, one of which is cream-slipped. This form is encountered regularly in Ptolemaic contexts in the oasis (Form 31). The necked jar, **950**, is a common type of Ptolemaic cooking vessel (Form 67).

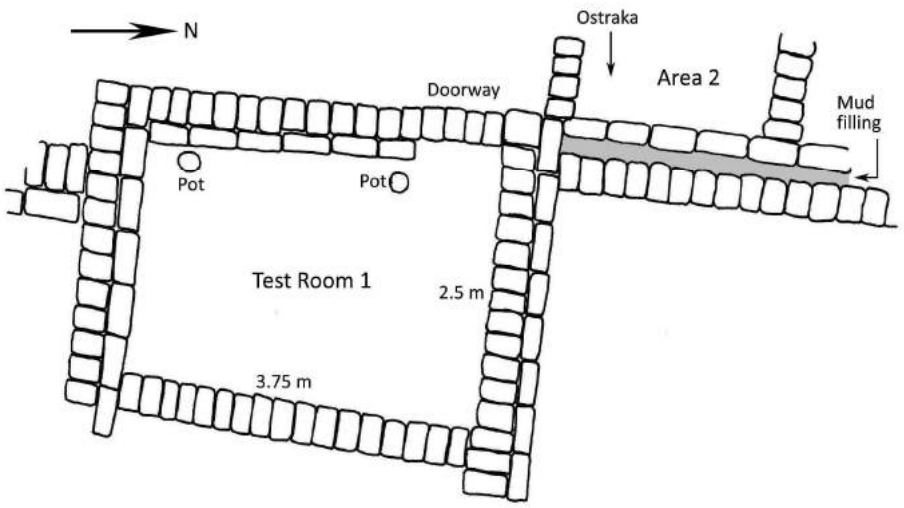


FIGURE A4.14 Site 20: Sketch plan of Tests 1 and 2 (after Mills F.N. *1979b: 71).*

DATING

Based on an analysis of the pottery, the site appears to have been occupied from the Ptolemaic Period through to the Late Roman Period.

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Mills *F.N.* 1979b: 70–72; Mills, A. J. 1980a: 265.

21. 32/390-F7-1 (Group D?)

LOCATION

This site is located approximately 3 km south-west of Site 19 (FIGURE 5.18). It is situated across a group of five small gravel hills and extends onto the plain in the south. It is bordered by sand dunes on the north and the edge of the modern cultivation is located 500 m to the south.

DESCRIPTION

This is a cemetery of around 100 tombs, which have been heavily plundered (FIGURE A4.15). Tomb types include both rock-cut tombs and simple pits. The surface is littered with sherds, bones, and fragments of ceramic coffin, and mud-brick architecture is visible in places.

Tomb 2: Located on the east side of a large outcrop, midway up the slope. This tomb measure 1.52 x 2.05 m and comprises a single mud-brick room with a compacted earth floor (FIGURE A4.16). The threshold comprises two sandstone blocks, each approximately 50 x 20 cm and 16 cm high. Traces of plaster can be seen on the threshold and fragments of painted plaster were found loose on the floor. The fill comprised clean sand, a single complete vessel and disturbed human skeletal remains.

POTTERY (Number 951)

Only a small amount of pottery was collected from this site. A single sherd from a large keg was collected from the surface; however, it was too eroded for the form and ware to be properly identified. Tomb 1 did not contain any pottery apart from several body sherds from a large jar in fabric P1a. Tomb 2 contained a single complete vessel, **951**. This form (Form 45) is found within Early Ptolemaic contexts at other sites in the oasis, although usually examples are cream-slipped and decorated with geometric and floral designs.

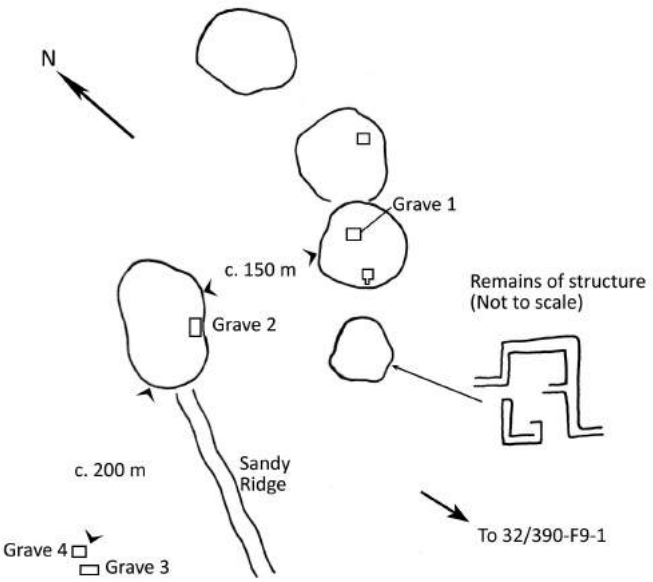


FIGURE A4.15 Site 21: Sketch plan (after Leahy F.N. *1979: 20).*

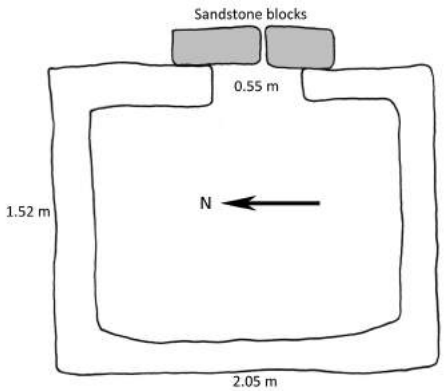


FIGURE A4.16 Site 21: Sketch plan of Tomb 2 (after Leahy F.N. *1979: 26).*

DATING

Tomb 2 is tentatively assigned an Early Ptolemaic date based on the single associated vessel. No other datable evidence has been recorded, and therefore the site needs to be reinvestigated in order to establish a date for its use.

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Leahy *F.N.* 1979: 21–27; Mills A. J. 1980a: 263.

22. 32/405-A8-1 (Group E)

LOCATION

This site is located 2.6 km south-west of Site 23 and 800 m south of Dayr Abu Matta (FIGURE 5.9). It is situated beside the modern road in an area of bare sandy soil, and is surrounded on all sides by modern cultivation.

DESCRIPTION

This site appears to have been a settlement and comprises an extensive sherd scatter (200 x 75 m), as well as traces of several mud-brick building complexes. Vaulting is preserved in places. Testing by the local inspectorate has revealed the foundations of an intriguing structure which has baked-brick walls and stone foundations (FIGURE A4.17; PLATE D.1). There is also a complex of irregular *pisé* walls at the northern end of the site (FIGURE A4.18; PLATE D.2). *In situ* ceramic ovens are preserved in some rooms. The sherd scatter covers the site and extends into the adjacent fields. A single Ptolemaic coin was found at Dayr Abu Matta, which is located only 800 m to the north of Site 22. As no other Ptolemaic remains were found at Dayr Abu Matta, this coin is thought to be intrusive (Bowen 2009: 10). Due to the close proximity of these two sites, it is possible that the coin originated from Site 22.

POTTERY (Numbers 952–1002)

A collection of surface pottery was made by the author in 2009. This included pottery that had been left in and around a number of test pits excavated by the local inspectorate. Approximately half of the collected sherds date to the Ptolemaic Period (**952–1002**), while the other half are of Early Roman date.

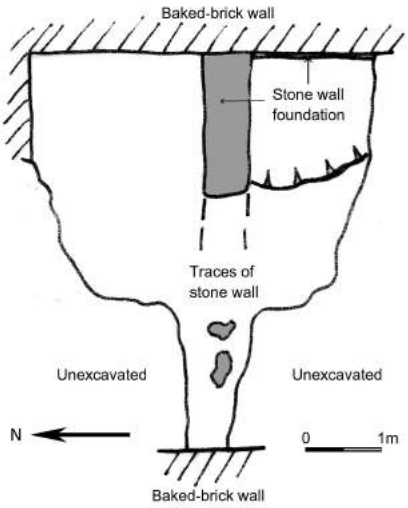


FIGURE A4.17 Site 22: Sketch plan of stone and baked-brick structure (by author).

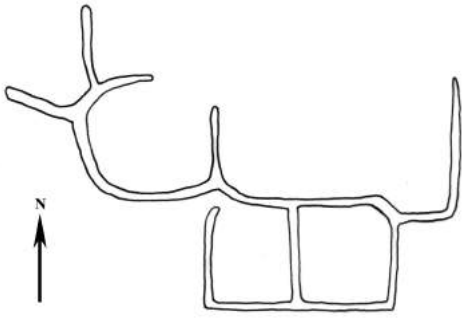


FIGURE A4.18 Site 22: Sketch plan of pisé walls (after Mills F.N. *1979b: 96).*

The Ptolemaic pottery largely comprises utilitarian vessels, particularly large deep bowls with modelled rims, **956–976** (Forms 31–35); jars with modelled rims, **988–995** (Forms 63–65), and **978–980** (Form 61); and kegs with either rounded or collared rims, **996–1001** (Forms 94–98). These are comparable to types found regularly within Ptolemaic contexts at Mut al-Kharab. Other diagnostic Ptolemaic types include necked cooking vessels, **984** and **985** (Form 67), and a single example of a cooking pot with horizontal loop-handles, **987** (Form 47). Interestingly, a decorated body sherd was found, **1002** (PLATE E.8), which appears to belong to a large Bes-vessel (Form 79). The sherd is cream-slipped and preserves red decoration and an applied/modelled feature that appears to be an ear. If this is in fact part of a Bes-vessel, it is a significant find as it is the only example of Ptolemaic date found in the oasis outside of Mut al-Kharab. It is also much larger than any of the examples found at that site (CHAPTER 3). Overall, the assemblage from this site is domestic in nature and is comparable to the Ptolemaic pottery from Mut al-Kharab.

DATING

Based on the pottery the site appears to have been in use during the Ptolemaic and Early Roman periods.

BIBLIOGRAPHY

Bowen 2009; Mills *F.N.* 1979b: 93–96.

23. 32/405-C7-2 (Group E)

LOCATION

This site is located 2.6 km north-east of Site 22 (FIGURE 5.9). It is situated in the low foothills of the escarpment and is bordered by modern cultivation on the south and west.

DESCRIPTION

This is an extensive cemetery comprising simple pit graves, vaulted mud-brick tombs and multi-roomed mausolea. The site is largely undisturbed, although there are sherds and skeletal remains scattered on the surface in places. One mausoleum was tested and contained the bodies of twenty individuals, including many children.

POTTERY (Numbers 1003–1004)

A total of eleven diagnostic sherds were collected from the surface of the site, as well as a large number of body sherds. Some of these have not been drawn and their forms cannot be clearly determined. The

remainder appear to be of Late Roman date apart from two sherds that appear to be Ptolemaic types (**1003** and **1004**). One of these is a large jar with a modelled rim, **1003** (Form 65), which is a common Ptolemaic type. The other, **1004**, is similar to the first, but with a vertical handled attached to the rim and shoulder (cf. Form 74).

DATING

The surface pottery indicates that the site was in use during the Late Roman Period, and possibly also during the Ptolemaic Period. Additional tombs must be tested before an exact date for the cemetery can be determined. The proximity of this cemetery to the settlement at Site 22 may point to a connection between the two sites.

BIBLIOGRAPHY

Churcher and Mills 1999: 264; Mills 1981a: 190.

24. 31/405-D7-2 (Possibly part of Group F)

LOCATION

This site is located 1.7 km west of Site 25 and 3.7 km north-west of Mut al-Kharab (Site 29) (FIGURE 5.18). It is situated on the south-eastern slope of a spring mound.

DESCRIPTION

This is a cemetery of approximately 25 vaulted mud-brick tombs clustered together. There is also an isolated mud-brick structure of four rooms standing to the south, which can perhaps be interpreted as a mausoleum. One tomb was tested.

Test 1: One room was tested within the tomb (FIGURE A4.19). This measures 4.6 x 2.1 m and has a vaulted ceiling and three doorways, one of which leads to an adjacent tomb. The average brick size is 32 x 17 x 8 cm. The fill contained wind-blown sand and the disturbed skeletal remains of at least nine adults and fourteen children. The lower part of this tomb appeared to be undisturbed and an anthropoid ceramic coffin was found at floor level. This contained an *in situ* human skeleton. Jewellery and amulets were found with the skeleton (FIGURE A4.20) and four pots were found on the floor of the tomb.

POTTERY (Numbers 1005–1009)

Four vessels were recovered from the floor of Test 1 (**1006**–**1009**). These appear to be Ptolemaic in date, particularly the necked cooking vessel **1008** (Form 74) and the two-handled jar **1009** (Form 67), which are common Ptolemaic types. Numbers **1006** and **1007** bear some traces of blackening, which is perhaps indicative of use within a funerary related ritual; however, the presence of a cooking vessel in the tomb, **1009**, with smoke blackening on the lower body, may be seen as evidence for the reuse of domestic pottery as funerary equipment.

In addition to the vessels found in Test 1, part of a large Ptolemaic keg was found on the surface of the site, **1005** (Form 97).

DATING

The burial found at the base of Test 1 appears to be of Ptolemaic date based on the associated pottery. The human remains discovered within the upper fill may be the result of later reuse of the tomb, or alternatively could belong to contemporary burials from elsewhere within the tomb structure, which have been disturbed. It is unclear whether the cemetery was used during any other period.

BIBLIOGRAPHY

Churcher and Mills 1999: 260; Mills *F.N.* 1979b: 51; Sheldrick *F.N.* 1979: 34–40.

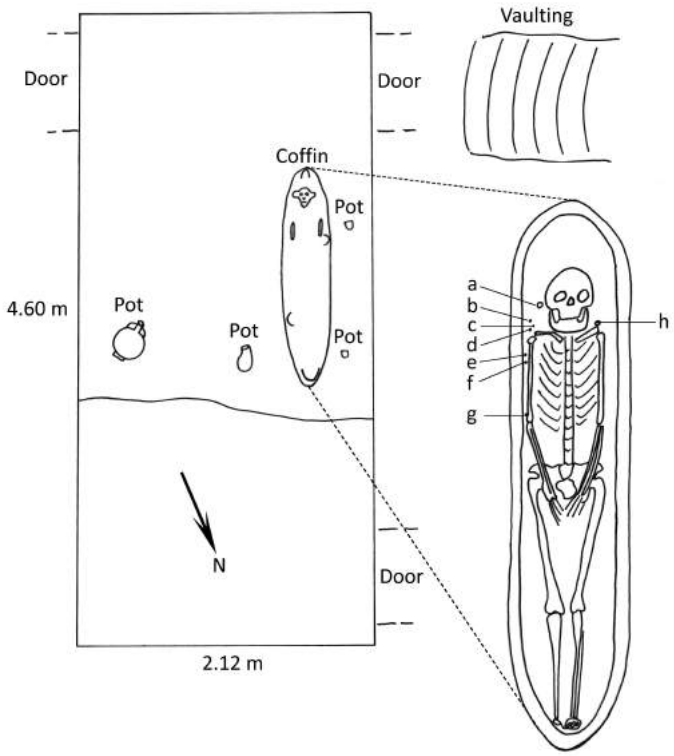


FIGURE A4.19 Site 24: Sketch plan of Tomb 1/ Test 1 (after Sheldrick F.N. *1979: 37).*

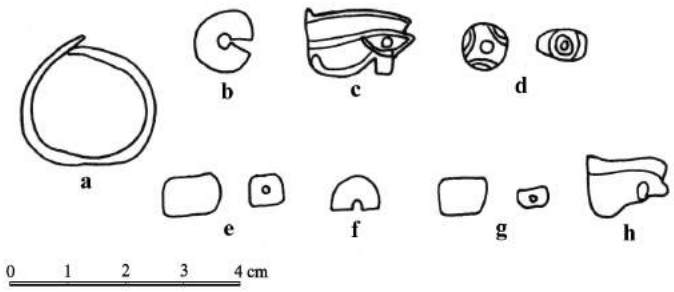


FIGURE A4.20 Site 24: Copper earring (a) and miscellaneous beads (b-h) from Tomb 1/ Test 1 (after Sheldrick F.N. *1979: 37).*

25. 31/405-F6-1 (Possibly part of Group F)

LOCATION

This site is located 1.7 km east of Site 24 and 3.4 km north-north-west of Mut al-Kharab (Site 29) (FIGURE 5.18). It is situated on a large spring mound approximately 150 m in diameter.

DESCRIPTION

This is a cemetery of 100 or more tombs, which has been heavily plundered. The surface is littered with potsherds, and there are fragments of ceramic coffin on the west slope. One tomb structure was excavated.

Tomb 1: A mud-brick structure measuring 5.5 x 7.25 m, which comprises two adjoining vaulted rooms (Rooms 1 and 3) with a small space between the two vaults (Room 2). There is also a separate unvaulted room (6 x 1.75 m) on the north side and other walls extending east (FIGURE A4.21).

Room 1 measures 2.25 x 2.65 m. It contained the disturbed skeletal remains of two infants and a young child, as well as five pottery vessels.

Room 2 measures 0.5 x 2.65 m. It contained the skeletal remains of an infant, as well as fifteen pottery vessels at burial level and twenty-two vessels in the overlying fill.

Room 3 measures 2.65 x 2.65 m. It contained three pottery vessels.

It is possible that the tomb was reused at some point, as Room 2 is not an original room but actually the space between the two vaulted rooms (Rooms 1 and 3); however, the pottery from all three rooms is of Ptolemaic date, and there is no clear evidence for use during any other period. It is not possible to determine the original sequence of use due to the disturbed nature of the burials.

POTTERY (Numbers 1010–1060)

The pottery from Tomb 1 was previously published by Hope (1981: Pls XXIII–XXV), who dated it as Roman, although it has since been recognised as Ptolemaic (cf. Hope 1999: 230). The assemblage has many parallels with pottery from other Ptolemaic sites in the oasis. Interestingly, most of the pottery comes from Room 2, which may reflect a difference in the status of the burial, or the number of individuals originally buried in the room; however, the tomb has been disturbed too much for this to be determined.

The vessels found in the tomb are for the most part characteristic Ptolemaic types. For instance, the range of small bowls found in Room 2, **1043**–**1052**, are comparable to Ptolemaic types found at Mut al-Kharab and elsewhere in Dakhleh (Forms 11, 17, 19, 20 and 28), with two examples made in fabric B3, which is exclusively a Ptolemaic/Roman fabric. The spouted vessels, **1018** and **1040**, are particularly diagnostic types (Forms 81 and 83), and one of these, **1040**, carries an incised graffito of six characters. This does not appear to be a known script and may instead represent identification marks of some kind. The double-gourds, **1012**, **1028** and **1031**, are a type found regularly in Ptolemaic contexts in the oasis (Form 56), as are the large jars with modelled rims, **1032** and **1060** (Form 65). The handled vessels, **1057** and **1059** (Forms 74 and 75), and the deep craters, **1055** and **1056** (Form 45), are also paralleled in other Ptolemaic assemblages in the oasis. Numbers **1030** (Form 77) and **1041** (Form 73) are so far not paralleled in the oasis, but they are comparable to Ptolemaic types found in the Nile Valley (APPENDIX 3). Three different types of flask are also present in the assemblage, **1019** (Form 90), **1020** (Form 70) and **1042** (Form 93), and again, although direct parallels are not known from the oasis, examples are known from the Nile Valley and from Kharga (APPENDIX 3). Overall, the range of forms, fabrics and surface treatments encountered here are what we would expect to find in an assemblage of Ptolemaic date.

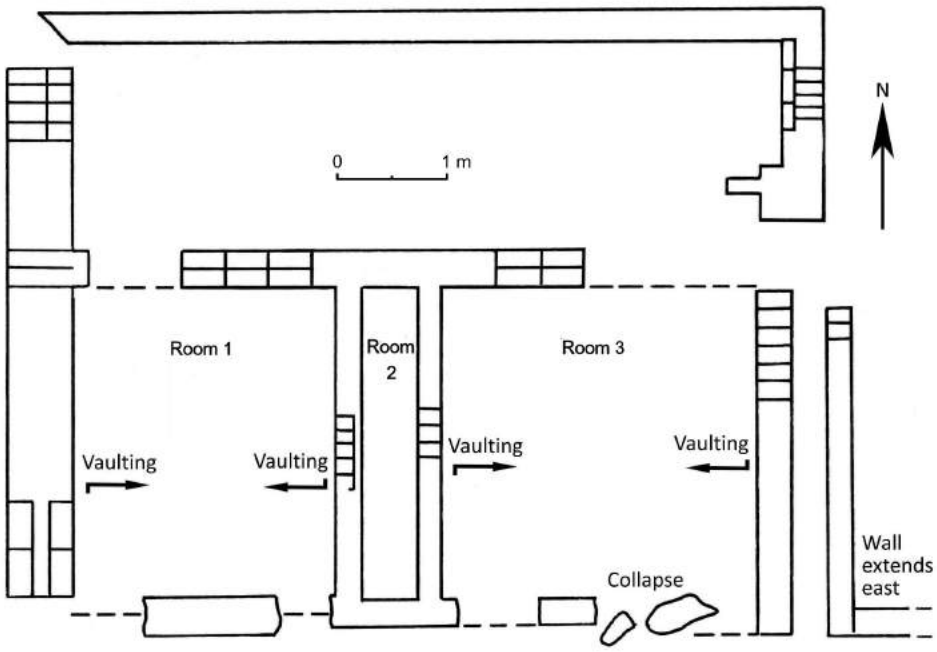


FIGURE A4.21 Site 25: Sketch plan of Tomb 1 (after Brind F.N. *1980: 25).*

DATING

The pottery from Tomb 1 indicates that it was used during the Ptolemaic Period; however, it is unclear whether the tomb was constructed during this period. There is some indication of reuse, but the exact sequence of use cannot be determined due to the disturbed nature of the tomb. There is no clear evidence for use of the cemetery during any period other than the Ptolemaic Period.

BIBLIOGRAPHY

Brind *F.N.* 1980: 25–39; Churcher and Mills 1999: 260; Hope 1981; Mills 1981a: 180.

26. 31/405-F9-1 (Bir Shaghala) (Group F)

LOCATION

This site is located approximately 1 km north-west of Mut al-Kharab (Site 29) (FIGURE 5.10). It is situated on the sides of a large cone-shaped mound approximately 150 m in diameter and 14 m high, and on the surrounding plain. It is bordered by sand dunes on the west and is surrounded by modern cultivation.

DESCRIPTION

This is a cemetery comprising both rock-cut tombs and mud-brick mausolea (Areas 1 and 2) (FIGURE A4.22). There appears to be around 400 tombs in total and the surface is littered with potsherds and human bones. There is also a kiln located 200 m to the north (Hope 1981: 238). Three tombs were tested by the DOP and the site is currently under excavation by the local inspectorate (Bashendi 2012: 249). The remains of pyramidal superstructures have been uncovered, which appear to be of Early Roman date.

Area 1: A series of rock-cut tombs are located on the steep sides of the mound, while surface depressions indicate further tombs on the lower slopes and extending onto the plain. These tombs occupy an area measuring 600 x 50 m.

Area 2: A number of mud-brick mausolea are located on the east side of the mound in an area measuring 150 x 200 m. There are around 200 contiguously built rooms with vaults or domes and some with decorated plaster. The remains of pyramidal superstructures have also been discovered.

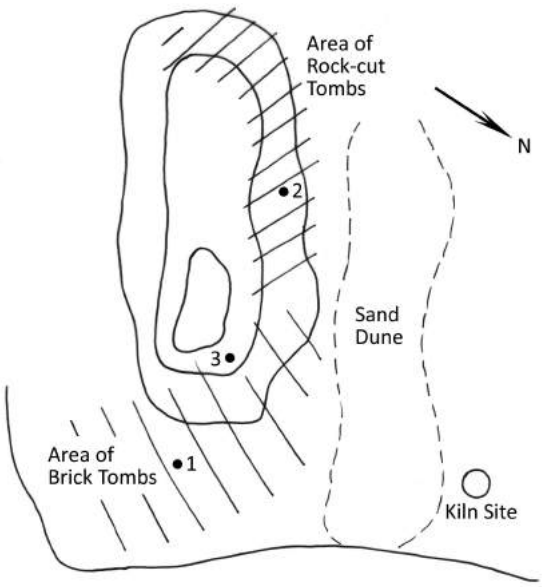


FIGURE A4.22 Site 26: Sketch plan (after Mills A. J. F.N. *1980b: 27).*

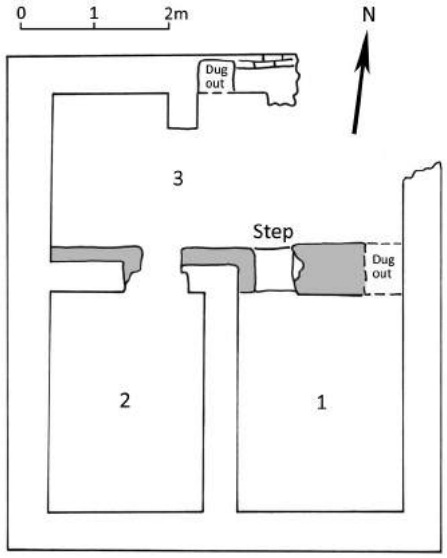


FIGURE A4.23 Site 26: Sketch plan of Tomb 3. Shading represents later modification of walls (after Mills L. F. F.N. *1980: 44).*

Tomb 3 may have been constructed during the Ptolemaic Period. This is a mud-brick tomb measuring c. 6 x 6.5 m, which comprises three rooms (FIGURE A4.23). The tomb is largely ruined and plundered, with the walls preserved up to 45 cm high. Room 1 was cleared and the fill included potsherds and human bones. The entrances to Rooms 1 and 2 appear to have been modified at some stage, which suggests that the tomb was subject to reuse, perhaps during the Early Roman Period (cf. below).

POTTERY (Numbers 1061–1062)

Approximately thirty diagnostic sherds were collected from the surface of the site. These appear to date from the Early to Late Roman Period.

Likewise, the pottery from Tomb 3 appears to be Early Roman in date, apart from a single complete vessel found in the fill that is likely to be Ptolemaic. This vessel, **1061**, is a deep bowl with a modelled rim and ring-base, which has numerous parallels amongst other Ptolemaic assemblages in the oasis (Form 30d). The cream-slipped surface also points to a Ptolemaic date. The presence of this vessel might reflect a Ptolemaic phase of use for the tomb, which was subsequently modified and reused during the Roman Period. This interpretation is supported by the fact that the walls and entrances have been modified. In addition, the rim of a deep bowl, **1062** (Form 31), of possible Ptolemaic date was found adjacent to the northern kiln, along with part of cream-slipped keg.

DATING

The cemetery appears to have been in use during the Early Roman and Late Roman Periods, although there is some indication that activity began as early as the Ptolemaic Period. Tomb 3 might have been originally constructed in the Ptolemaic Period and subsequently reused in the Early Roman Period.

BIBLIOGRAPHY

Bashendi 2012: 249–260; 2013; Churcher and Mills 1999: 260; Hope 1981: 238; Mills A. J. *F.N.* 1980b: 27–28; Mills L. F. *F.N.* 1980: 45; Sheldrick *F.N.* 1980a: 70–71.

27. 31/405-F9-5 (Group F)

LOCATION

This site is situated on a spring mound 600 m north-west of Mut al-Kharab (Site 29) and to the south-east of Site 26 (FIGURE 5.10).

DESCRIPTION

This is a cemetery of 20–50 graves, identified as depressions on the surface of the mound. One grave was tested (Grave 1). This is an evenly cut grave (2 x 2 m) located on the west slope of the mound (FIGURE A4.24). Floor level was reached at a depth of 68 cm, and the bodies of three individuals were found, along with the broken skull of a fourth. There was also a niche cut into the floor (38 x 115 cm) in the northwest corner that held the body of a child. A single intact vessel was found in the southwest corner.

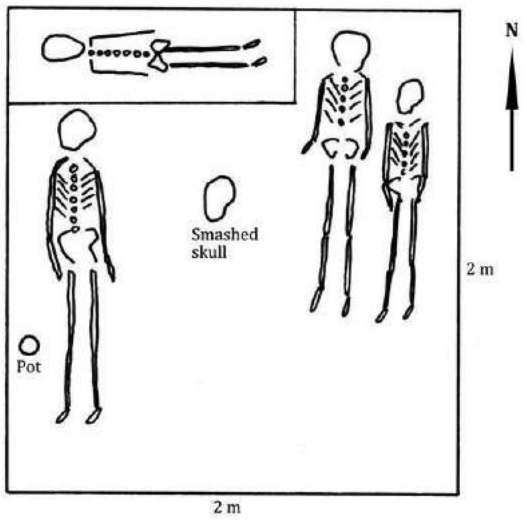


FIGURE A4.24 Site 27: Sketch plan of Grave 1 (after Brind F.N. *1980: 42).*

POTTERY (Numbers 1063–1064)

Five diagnostic sherds were collected from the surface of the site. One of these is a rim from a deep bowl that is probably Ptolemaic, **1063** (Form 31). The remaining sherds include types of Early Roman date, as well as a small offering bowl that could be of Late Period date.

A single vessel was found in Grave 1, **1064**. While simple bowls of this type are regularly found in contexts dating to both the Ptolemaic and Early Roman Periods, the direct rim and flat base, as well as the slight indentation below the rim are features that are indicative of a Ptolemaic date for this vessel (Form 24). The fact that the vessel is cream-slipped is further evidence for a Ptolemaic date.

DATING

The ceramic evidence indicates that the cemetery was in use during the Ptolemaic and Early Roman periods, and perhaps earlier.

BIBLIOGRAPHY

Brind *F.N.* 1980: 41–43.

28. 31/405-G9-2 (Tell el-Marqula) (Group F)

LOCATION

This site is situated on the top and slopes of a large mound approximately 300 m north of Mut al-Kharab (Site 29) (FIGURE 5.10).

DESCRIPTION

This is a cemetery comprising a number of vaulted mud-brick tombs. Some of the chambers are paved with sandstone slabs. Undecorated sandstone coffins have been found and each tomb usually has more than one. A total of 25 tombs have been excavated by the local inspectorate.

POTTERY (Numbers 1065–1068)

A range of pottery was recovered from the tombs, although the exact provenance of each vessel was not recorded. Within the assemblage are four vessels that are clearly Ptolemaic types, **1065**–**1068**, while the other vessels appear to be of Late Period date. The Ptolemaic vessels are common types, which are paralleled at other Ptolemaic sites in the oasis. These include a large jar with a modelled rim, **1068** (Form 65), which is cream-slipped with a red rim-band; a deep bowl with a modelled rim and ring-base, **1065** (Form 30); and a spouted vessel, **1066** (Form 83), both cream-slipped. The small jar, **1067**, is somewhat similar to Forms 51/52, but differs in that it has a rounded base. The fact that it is cream-slipped points to a Ptolemaic date for this vessel.

DATING

The ceramic evidence indicates that the cemetery was in use during the Late Period and Ptolemaic Period, although the date of specific tombs is not known.

BIBLIOGRAPHY

Churcher and Mills 1999: 261; Hope 2001a: 35; Yamani 2002: 425.

29. 31/405-G10-1 (Mut al-Kharab) (Group F)

LOCATION

This site is located on the south-western edge of the modern town of Mut (FIGURE 5.10). It is situated across several mounds and is almost completely surrounded by modern cultivation.

DESCRIPTION

This site is characterised by a large mud-brick temenos wall, measuring 217 m north-south by 180 m east-west (FIGURE A4.25; See CHAPTER 2 for a detailed description of the site.). Within the enclosure several groups of mud-brick buildings are preserved on the surface. A stone temple once stood in the central part of the site, but it is now ruined and is represented only by traces of stone wall-foundations and isolated stone blocks. A large number of Demotic and Greek ostraka found at the site point to the existence of a temple here during the Ptolemaic Period (Vittmann 2012; cf. CHAPTER 2). Several mud-brick structures in the south-eastern corner of the site also appear to have been utilised during this period.

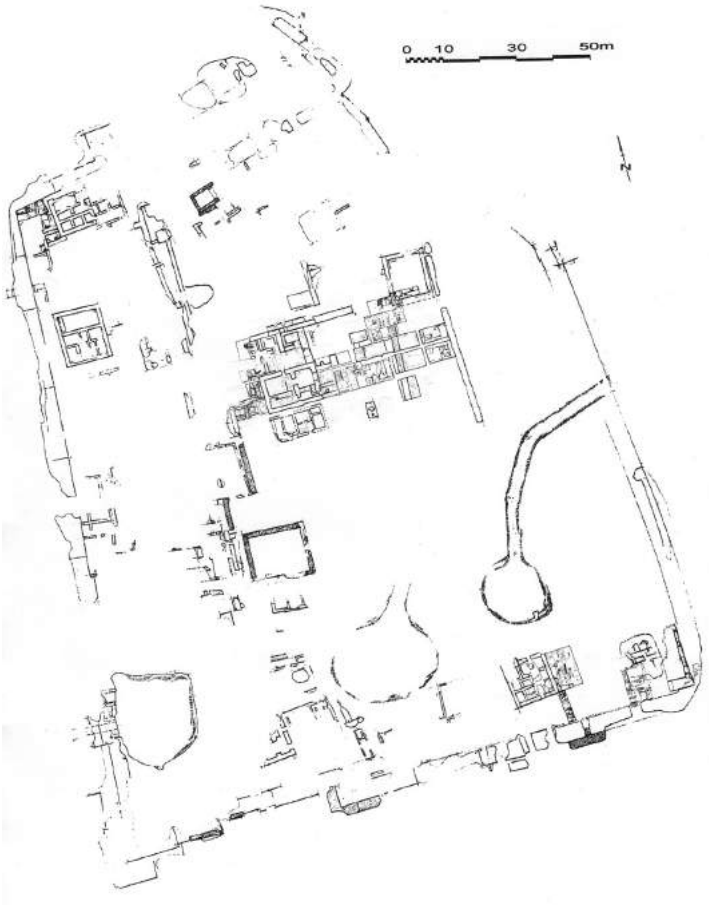


FIGURE A4.25 Mut al-Kharab (Site 29): General plan.

POTTERY (Numbers 1–784, APPENDIX 2)

Large amounts of Ptolemaic pottery have been discovered at the site (CHAPTER 2; APPENDIX 2). The majority of this derives from trenches located in the south-eastern corner of the temenos. For a discussion of this material see also Gill (2012a; 2012b; *Forthcoming a; c; d*).

DATING

The site appears to have been occupied from as early as the Old Kingdom (possibly from Dynasty IV), based on pottery finds and structural remains (Hope *et al.* 2009: 63). There is also evidence for activity during Dynasty XI and Dynasties XVIII–XXII in the form of pottery and inscriptions (Hope *et al.* 2009: 64). Major phases of occupation occurred in Dynasties XXV–XXVII and in the Ptolemaic and Early Roman periods, and continued through the Late Roman and Islamic periods (Hope *et al.* 2009: 64–66).

BIBLIOGRAPHY

Gill 2012a; 2012b; *Forthcoming a; c; d*; Hope 2002a; 2003; 2004; 2005; Hope *et al.* 2006; 2009; Vittmann 2012.

30. 31/405-G9-3 (Humayat B) (Group F)

LOCATION

This site is located on a small mound 400 m north of Mut al-Kharab, within the modern town of Mut (FIGURE 5.10).

DESCRIPTION

This is a cemetery of mud-brick tombs, which has been excavated by the SCA. Both stone and ceramic coffins were recovered from the tested tombs, along with numerous pottery vessels.

POTTERY (Numbers 1069–1075)

A range of pottery was recovered from the tombs, although the exact provenance of each vessel was not recorded. This pottery appears to date primarily to the Late and Ptolemaic periods, with seven vessels belonging to the latter period, **1069**–**1075**. Although the fabric for four of these vessels is not recorded, the forms are characteristic of a Ptolemaic date. In particular, the large jar, **1075** (Form 65), and the deep bowls, **1070**–**1072** (Forms 29–30), are common Ptolemaic forms, while the squat jar, **1074** (Form 52), appears to be a type used exclusively within funerary contexts. The spout, **1073**, is probably from a Form 83 vessel. The small bowl, **1069**, is also a standard Ptolemaic type (Form 24).

DATING

The ceramic evidence indicates that the site was in use during the Late Period and Ptolemaic Period.

BIBLIOGRAPHY

Hope 2001a: 35.

31. 31/405-H9-2 (Group F)

LOCATION

This site is located 1.4 km north-east of Mut al-Kharab (Site 29), within the modern town of Mut (FIGURE 5.10). It is situated on the sides of a small active spring mound, measuring 60 m in diameter and 8 m high.

DESCRIPTION

This is a cemetery of approximately 40 vaulted mud-brick tombs, which has been plundered both in antiquity and recently. The surface is littered with pottery, bones, and mud-bricks. One tomb was tested (Tomb 1). This was a single-roomed brick-lined tomb with a vaulted ceiling, measuring 2.55 x 1.65 m and 1.32 m high (FIGURE A4.26). The entrance measures 75 cm wide and 52 cm high and is located on the south. Three pottery coffins were found *in situ* with the lids moved and broken. Intact vessels were also found.

POTTERY (Numbers 1076–1078)

Three vessels were found in Tomb 1, **1076**–**1078**. All three are large jars with modelled rims, two of which are cream-slipped, **1076** and **1077**, whilst the third is cream-slipped and decorated with black and red floral designs, **1078a** and **b**. This type of jar, with or without decoration, is extremely diagnostic of the Ptolemaic Period (Form 63). Both the shape of the rim and the style of the decoration find many parallels amongst the Ptolemaic pottery at Mut al-Kharab, as well as at other sites in the oasis.

DATING

Tomb 1 clearly dates to the Ptolemaic Period.

BIBLIOGRAPHY

Churcher and Mills 1999: 260; Mills 1981a: 183; Mills A. J. *F.N.* 1980b: 49–52.

32. 31/405-H10-1 (Group F)

LOCATION

This site is located 1.5 km east of Mut al-Kharab (Site 29), just beyond the edge of the modern town of Mut (FIGURE 5.10). It is completely surrounded by modern cultivation.

DESCRIPTION

This is a habitation site comprising traces of mud-brick walls and a surface sherd scatter measuring approximately 100 x 100 m. Several separate buildings can be recognised, but the entire area is mineralised and the preservation is poor. One area was tested.

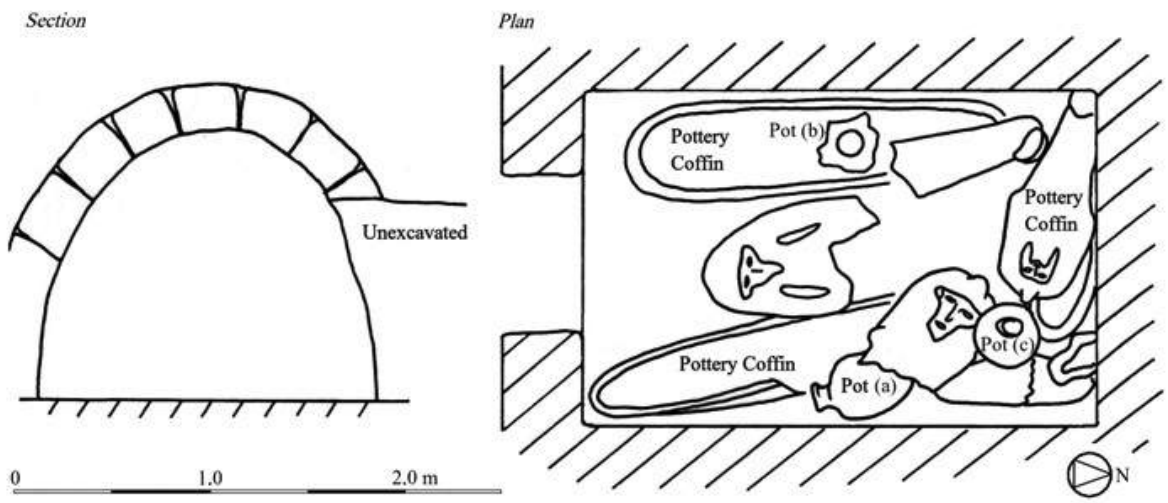


FIGURE A4.26 Site 31: Plan and section of Tomb 1 (after Mills A. J. F.N. *1980b: 49).*

POTTERY (Numbers 1079–1083)

A total of eight diagnostic potsherds were collected from the surface of the site. These include types dating to the Ptolemaic and Early Roman Periods, as well as two vessels that could date to either the Late Period or Early Ptolemaic Period. The latter include a large jar with a rolled rim, **1082** (Form 59), and a deep spouted bowl made in fabric P25 (not illustrated). Three other vessels are indicative of a Ptolemaic date for the site. These include a deep bowl with a squared rim, **1079** (Form 43), and two bowls with modelled rims and ring-bases, **1080** and **1081** (Forms 29 and 30).

In addition to the pottery collected from the surface, four sherds were found in the fill of the tested area. One of these, **1083**, is a rim from a deep bowl with black and red decoration, which is a characteristic Ptolemaic type (Form 45). The remaining sherds comprise two body sherds from large jars (one P1a, the other Sr1), and a fragment of a ring-base (P1a).

DATING

Based on an analysis of the pottery the site appears to have been occupied in the Ptolemaic Period (possibly the Early Ptolemaic Period or the end of the Late Period), and also during the Early Roman Period.

BIBLIOGRAPHY

Churcher and Mills 1999: 261; Mills 1981a: 183.

33. 31/405-H10-3 (Group F)

LOCATION

This site is located 1.7 km south-east of Mut al-Kharab (Site 29) (FIGURE 5.10). It is situated on the side of a large gebel outcrop, approximately 30 m in height, and extends across to a low spring mound on the west.

DESCRIPTION

This is a cemetery comprising around 200 tombs. Most of the tombs preserve the remains of mud-brick superstructures, which have been heavily plundered. One tomb was excavated.

Tomb 1: A circular tomb (2.15–2.3 m in diameter) with a rectangular entrance (1.34 x 0.84 m) and an arched doorway (FIGURE A4.27). It contained the disturbed skeletal remains of several individuals. One of these was found inside a pottery sarcophagus with red and black painted decoration and a modelled face. Eleven pots were found in the tomb chamber.

POTTERY (Numbers 1084–1093)

The pottery from Tomb 1 was previously published by Hope (1981: Pl. XXVI), who dated it as Roman, although it has since been recognised as Ptolemaic (Hope 1999: 230). A total of eleven vessels, were found in the burial chamber of Tomb 1, **1084–1093**. Six of these are small simple bowls with flat bases and flaring rims, **1084–1088b** (Form 38), while two other bowls have flat bases and simple incurved rims, **1089–1090** (Form 24). Particularly diagnostic are the spouted vessel, **1091** (Form 82), and the flat-based pitcher, **1092**, both of which are paralleled at Mut al-Kharab and at other Ptolemaic sites in the oasis. The latter vessel likely had a vertical handle (cf. Form 69). The fact that **1092** is cream-slipped, as are two of the small bowls (**1088a** and **1090**), further supports a Ptolemaic date for these vessels. A direct parallel from the oasis is unknown for the handled vessel, **1093** (Form 68), although it is broadly comparable to Form 69. Seven of these vessels are stained and coated with a black resinous substance, while pieces of linen are stuck to the interior of **1093.** This indicates that they were probably used during the mummification process before being deposited in the tomb.

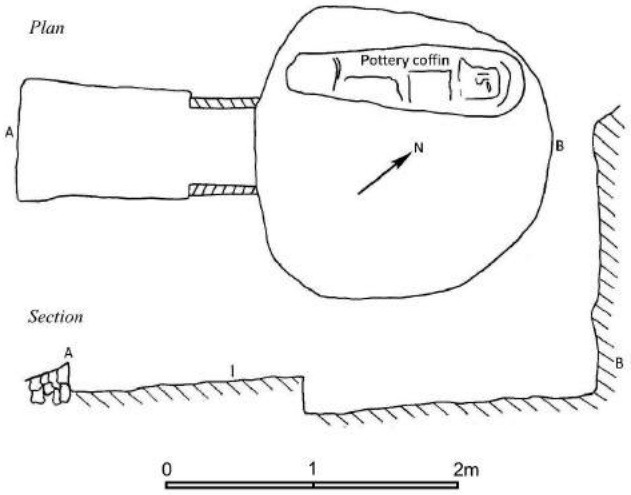


FIGURE A4.27 Site 33: Plan and section of Tomb 1 (after Mills L. F. F.N. *1980: 54, 56).*

DATING

Tomb 1 is clearly of Ptolemaic date based on an analysis of the pottery. It is unclear whether the cemetery was occupied during any other period.

BIBLIOGRAPHY

Churcher and Mills 1999: 260; Hope 1981; Mills L. F. *F.N.* 1980: 54–57.

34. 31/405-K10-4 (Group G)

LOCATION

This site is located 2 km west-south-west of ʻAin al-Azizi (Site 43), and adjacent to Sites 35 and 36 (FIGURE 5.11). It is situated on a low rise on the southern edge of the modern cultivation.

DESCRIPTION

This site is characterised by a dense sherd scatter extending 200 m north-south, as well as traces of mud-brick walls. The ground has hardened due to exposure to water from an adjacent well and was unable to be tested. No structures are preserved above ground, apart from a section of wall that is unusually thick (1.05 m).

POTTERY (Numbers 1094–1097)

A total of ten diagnostic sherds were collected from the surface of the site. Three of these are diagnostic Ptolemaic types, **1094–1096**, while the remainder are Roman. The Ptolemaic types include a deep spouted vessel, **1094** (Form 81), and two large cream-slipped jars with modelled rims, **1095** and **1096** (Forms 63 and 65).

In addition to the surface pottery, a single complete vessel was recovered from the fill of the well, **1097**. This is a deep bowl with a modelled rim and ring-base, which is a common Ptolemaic type (Form 30b).

DATING

An analysis of the ceramic remains indicates that the site was occupied during the Ptolemaic and Roman Periods.

BIBLIOGRAPHY

Brind *F.N.* 1980: 51; Churcher and Mills 1999: 263; Mills 1981a: 189.

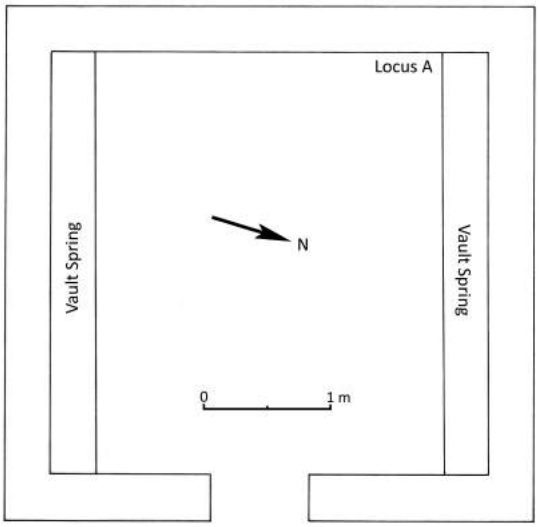


FIGURE A4.28 Site 35: Plan of Tomb 1 (after Sheldrick F.N. *1980b: 22).*

35. 31/405-K10-7 (Group G)

LOCATION

This site is located 1.8 km west-south-west of 'Ain al-Azizi (Site 43) and adjacent to Sites 34, 36 and 37 (FIGURE 5.11). It is situated on the side of a hill measuring 100 m north-south, 75 m east-west and 12 m high, on the southern edge of the modern cultivation.

DESCRIPTION

This is a cemetery comprising at least three large mud-brick tombs to the south, along with several smaller graves to the north. The surface is scattered with potsherds, pottery coffin fragments, human bone and mud-bricks. One tomb was tested (Tomb 1).

Tomb 1 comprises a single vaulted room (FIGURE A4.28). Locus A was cleared to floor level. The average wall-brick size is 35 x 17 x 9–10 cm, while the average vault-brick is 36 x 19 x 7 cm. The vaulting begins 65 cm above floor level. The fill contained sherds, mud-brick, and pottery coffin fragments. The tomb had clearly been disturbed.

POTTERY (Numbers 1098–1105)

A total of twenty-two diagnostic sherds were collected from the surface of the site. At least eight of these appear to be of Ptolemaic date, **1098–1105**. In particular, the large jars with modelled rims, **1104** and **1105**, are common Ptolemaic types (Form 65), as are the various deep bowls with modelled rims, **1098–1103** (Forms 29–30 and 35). Part of a handled vessel with a collared rim, **1102**, probably belongs to a large jar similar to Form 71. In addition, five ring-bases in wares P1a and Sc1 were collected, which may belong to the deep bowls described above or similar vessels. The remaining sherds appear to be of Roman date. Unfortunately, the pottery found in Tomb 1 was not recorded.

DATING

Based on the pottery, the site appears to have been in use during the Ptolemaic and Roman Periods. The date of Tomb 1 cannot be determined.

BIBLIOGRAPHY

Churcher and Mills 1999: 261; Mills 1981a: 189; Sheldrick *F.N.* 1980b: 22–25.

36. 31/405-K10-3 (Group G)

LOCATION

This site is located 1.8 km west-south-west of 'Ain al-Azizi (Site 43) and adjacent to sites 34, 35 and 37 (FIGURE 5.11). It is situated on the north-east side of a long hill measuring 500 m north-south, 100 m east-west and 15 m high, on the southern edge of the modern cultivation.

DESCRIPTION

This site comprises a single mud-brick structure of three rooms, measuring approximately 6.0 x 5.3 m and preserved up to 1.5 m high (FIGURE A4.29). The building is built in the 'header/stretcher' style and the average brick size is 38 x 18 x 10 cm. The south-western room was cleared (Test 1). The fill contained potsherds and isolated human bones. It is unclear whether this structure represents a house or a tomb. The presence of human bones in the fill suggests the latter, although there is no other evidence that the site is a cemetery. It is possible that the building is a house and that the bones are intrusive.

POTTERY (Numbers 1106–1114)

Eleven diagnostic sherds were collected from the surface of the site. Amongst these were the rims from two large deep bowls, **1106** and **1107** (Forms 31 and 35), and the neck and rim from a cream-slipped keg, **1108** (Form 96). All three are Ptolemaic types and the remaining sherds appear to be of Roman date. Approximately twenty diagnostic sherds were found in the fill of Test 1, along with a number of miscellaneous body sherds. Six of these, **1109**–**1114**, represent common Ptolemaic types, whilst the remaining sherds are of Roman date. The jars with the modelled rims, **1112** and **1113** (Forms 64 and 65), are particularly diagnostic of the Ptolemaic Period, as are the deep bowls, **1110** and **1111** (Form 29). A ring-base from a cream-slipped vessel was also recorded, and may belong to the deep bowl, **1110**. The small bowl with the flared rim, **1109** (Form 38), and the handled jar with the collared rim, **1114** (Form 71), are also common Ptolemaic forms. The fact that four of the six vessels are cream-slipped further supports a Ptolemaic date. In addition, several of the miscellaneous body-sherds that were found in the fill may also be of Ptolemaic date. These include sherds from vessels in fabric B3 (ware P9) and from large cream-slipped jars in fabric A1a (ware Sc1). Both of these fabrics/wares are characteristic of the Ptolemaic Period pottery assemblage in the oasis.

DATING

Based on the pottery the site appears to have been occupied during the Ptolemaic and Roman periods.

BIBLIOGRAPHY

Churcher and Mills 1999: 263; Mills 1981a: 188–189; Sheldrick *F.N.* 1980b: 17–20.

37. **31/405-K10-8** (Group G)

LOCATION

This site is located 1.6 km west-south-west of 'Ain al-Azizi (Site 43) and adjacent to Sites 35 and 36 (FIGURE 5.11). It is situated on the west slope of a small spring mound, approximately 20 m in diameter, on the southern edge of the modern cultivation.

DESCRIPTION

This site is characterised by a dense sherd scatter; however, no structural remains or mud-bricks were found on the surface. Such remains could potentially be obscured below the surface, although no testing was carried out to confirm this. A ceramic animal figurine was found on the surface (FIGURE A4.30).

POTTERY (Numbers 1115–1121)

A total of nine diagnostic sherds were collected from the surface of the site. All of these are regularly encountered in Ptolemaic assemblages throughout the oasis. In particular, the deep bowls with modelled rims, **1115**, **1117** and **1119** (Forms 30 and 32), are found frequently at Mut al-Kharab and many other Ptolemaic sites, while the large jar, **1121** (Form 65), and the short-necked jars, **1118** (Form 67) and **1120** (Form 60), are also common Ptolemaic types. The fact that three vessels in the assemblage are cream-slipped, also points to a Ptolemaic date.

In addition to the vessels illustrated, the rims from two kegs were also collected. These are short-necked with simple rounded rims, probably similar to Form 94, and can be dated to the Ptolemaic or Early Roman period.

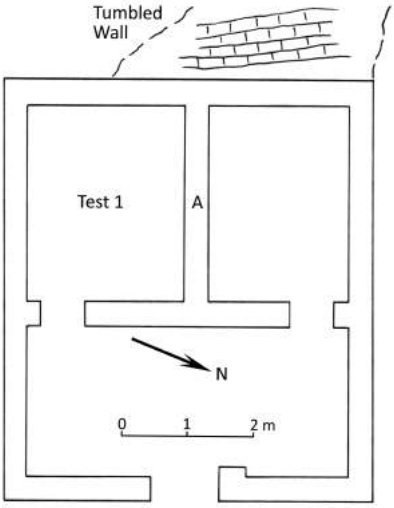


FIGURE A4.29 Site 36: Sketch plan (after Sheldrick F.N. *1980b: 18).*

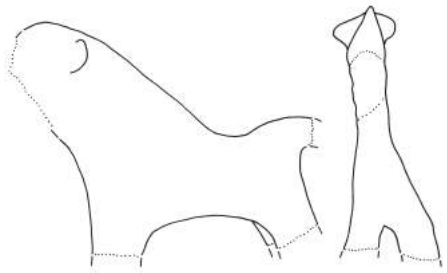


FIGURE A4.30 Site 37: Ceramic animal figurine from the surface (scale 1:2) (after Sheldrick F.N. *1980b: 27).*

DATING

The ceramic evidence indicates that the site was occupied during the Ptolemaic Period. There is no evidence for the site being occupied during any other period.

BIBLIOGRAPHY

Churcher and Mills 1999: 261; Mills 1981a: 184; Sheldrick *F.N.* 1980b: 27.

38. 31/405-L10-1 (Group G)

LOCATION

This site is located 1.3 km west-south-west of 'Ain al-Azizi (Site 43) and adjacent to Site 40 (FIGURE 5.11). It is situated on the slope of a spring mound, on the southern edge of the modern cultivation.

DESCRIPTION

This is a cemetery of approximately twenty tombs characterised by a dense sherd scatter and traces of vaulting and mud-brick walls. One tomb was tested (Tomb 1). This tomb, located on the south side of the spring mound at the base of the slope, comprises two vaulted rooms. The eastern room was tested. A doorway is located in the west wall and small windows were found in the east and south walls. The skeletal remains of 8–10 individuals, including five children were found in the fill, along with pottery and large fragments of sandstone. The bodies of two adults were found at floor level (86 cm deep), lying east-west.

POTTERY (Numbers 1122–1124)

A total of five diagnostic sherds were collected from the surface of the site. One of these is a rim sherd from a deep cream-slipped bowl, **1122**, which is a common Ptolemaic type (Form 30). The remaining four sherds are from short-necked jars with rounded rims, one of which is illustrated (**1123**). This type is encountered at Mut al-Kharab in contexts dating to the Late Period and the beginning of the Ptolemaic Period (Form 59). Unfortunately, the pottery found in the fill of Tomb 1 was not recorded, apart from a single complete vessel, **1124**. This is a small flask with a globular body and a short neck with a modelled rim, which is comparable to Form 93 but without handles. A Ptolemaic date for this vessel is supported by the fact that it is cream-slipped.

DATING

Despite the fact that a dense sherd scatter was noted on the surface of the site, it is difficult to establish a clear date for the occupation due to the small number of sherds collected. Likewise, the fact that most of the pottery from Tomb 1 was not recorded prevents us from determining a precise date for the tomb. Based on the available evidence it appears that the site was in use during the Ptolemaic Period, and perhaps already during the Late Period.

BIBLIOGRAPHY

Brind *F.N.* 1980: 55–59.

39. 31/405-L9-2 (Group G)

LOCATION

This site is located 1.1 km west of 'Ain al-Azizi (Site 43) (FIGURE 5.11). It is built against the south side of a rocky ridge, which is surrounded by modern cultivation.

DESCRIPTION

This is a habitation site comprising a mud-brick building of several rooms together with a surface scatter of sherds and fragments of a sandstone mortar. One room was tested (Test 1). This is a rectangular room (5 x 2.75 m) with a brick-lined magazine (1.9 x 0.9 m, 0.9 m deep) in the southwest corner (FIGURE A4.31). The walls are preserved up to 1.35 m high. The fill included sand, mud-brick rubble and potsherds, as well as a large amount of ash.

POTTERY (Numbers 1125–1132)

A total of eight diagnostic sherds were collected from the surface of the site. Of these, two sherds appear to be Ptolemaic types, **1125** (Form 31) and **1126** (Form 43). The fact that **1125** is cream-slipped with a red rim-band also points to a Ptolemaic date for this vessel. Amongst the surface pottery there is also a rim from a short-necked jar, **1127**, which is a type common to the Late Period and Early Ptolemaic Period (Form 59). The remaining sherds appear to be of Early and Late Roman date. Six diagnostic sherds were collected from the fill of Test 1, five of which are characteristic Ptolemaic types, **1128**–**1132**. These include small simple bowls, **1128** and **1129** (Form 23), as well as larger bowls with modelled rims, **1130** (Form 30) and **1131** (Form 35). The fact that three of these vessels are cream-slipped (**1129**, **1130** and **1131**) further supports a Ptolemaic date. A decorated body sherd from a large jar was also noted, **1132**, which comprises a painted design in red and black on a cream-slipped background, in a characteristic Ptolemaic style (cf. CHAPTER 3.5). In addition to the Ptolemaic pottery, a single sherd from a small bowl was noted, which appears to be of Late Roman date and might be intrusive.

DATING

Based on the pottery found in the fill of Test 1, the structure appears to have been in use during the Ptolemaic Period. The surface pottery indicates that the site was occupied during the Early Ptolemaic Period (and possibly slightly earlier), as well as in the Early and Late Roman periods.

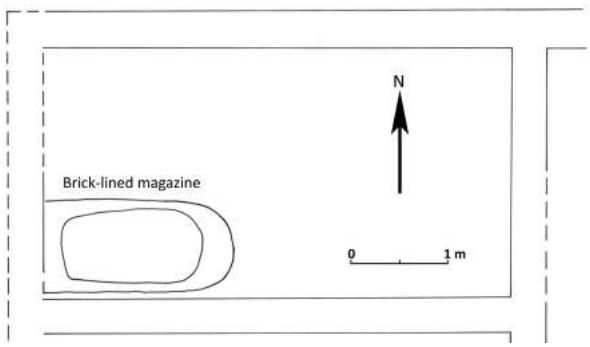


FIGURE A4.31 Site 39: Sketch plan of Test 1 (after Mills L.F. F.N. *1980: 66).*

BIBLIOGRAPHY

Churcher and Mills 1999: 261; Mills L.F. *F.N.* 1980: 66–67; Mills 1981a: 189.

40. 31/405-L10-2 (Group G)

LOCATION

This site is located 1 km west-south-west of 'Ain al-Azizi (Site 43) and adjacent to Site 38 (FIGURE 5.11). It is situated at the south-end of a steep-sided gebel outcrop, measuring 100 m north-south, 50 m east-west and 15 m high, on the southern edge of the modern cultivation.

DESCRIPTION

This is a square mud-brick structure measuring 11.5 x 11.5 m, and comprising seven or more rooms (FIGURE A4.32). The walls are constructed in the 'header/stretcher' method and the average mud-brick size is 35 x 17 x 9 cm. A sandstone threshold (96 x 40 x 15 cm) is located in the doorway at Locus A. The surface of the site is littered with potsherds.

POTTERY (Numbers 1133–1142)

A total of thirty-seven diagnostic sherds were collected from the surface of the site. While the majority of these appear to be of Early Roman date, nine sherds represent characteristic Ptolemaic types (**1133–1140**). In particular, the large, cream-slipped jar with the modelled rim, **1136**, is an extremely common Ptolemaic type (Form 65), whilst the cream-slipped jar with a red rim and a black band on the neck, **1138**, is also very diagnostic in terms of both form and decoration (Form 65; CHAPTER 3.5). The small bowls, **1133** and **1134** (Forms 22 and 24), along with the short-necked jar, **1139** (Form 60), are common Ptolemaic forms, although similar vessels are also encountered in the Roman Period. Without knowing the fabric and/or ware of these vessels it is difficult to establish a precise date. The two kegs, one with an angular rim, **1137** (Form 96), and the other with a simple out-folded rim, **1140** (Form 94), are diagnostic Ptolemaic types. Finally, the short-necked jar, **1135** (Form 59), is found in contexts dating to the both the Late Period and Early Ptolemaic Period at Mut al-Kharab, as well as at several other sites in the oasis. In addition to these vessels, a body sherd from a large decorated jar was also noted by the excavator (unillustrated). The decoration is described as a black lattice design, separated by a space and terminating in a black line, over a cream-slipped background (Dc1 ware). This is likely to be from a vessel of Ptolemaic date (compare **1184**).

Of the pottery recovered from the fill of the structure two vessels were recorded, **1141** and **1142**. These are deep bowls (one complete, one fragmentary), which are quite similar in form, and are of a type regularly encountered within Ptolemaic assemblages in the oasis (Form 45). Red-slipped examples such as **1142** are not particularly common, whilst cream-slipped and decorated examples similar to **1141** are encountered regularly in the oasis.

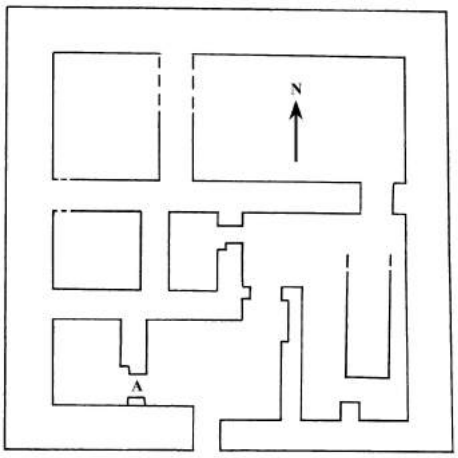


FIGURE A4.32 Site 40: Sketch plan (after Sheldrick F.N. *1980b: 32).*

DATING

The pottery indicates that the site was occupied from the Early Ptolemaic Period through to the Early Roman Period.

BIBLIOGRAPHY

Churcher and Mills 1999: 261; Sheldrick *F.N.* 1980b: 31–33.

41. 31/405-L10-3 (Group G)

LOCATION

This site is located 1 km south-west of ʻAin al-Azizi (Site 43) (FIGURE 5.11). It is situated across three adjacent hills just beyond the southern edge of the modern cultivation.

DESCRIPTION

This is a cemetery of around 100 tombs, which has been plundered. The surface is scattered with potsherds, as well as fragments of both sandstone and ceramic coffin. Two tombs were tested. These were small simple pits with a lateral niche and a vaulted roof, and contained articulated burials.

POTTERY (Numbers 1143–1148)

More than sixty diagnostic sherds were collected from the surface of the site. The majority of these appear to be of Early Roman date, while several Late Period types and six Ptolemaic types were also noted (**1143**–**1148**).

The Ptolemaic Period sherds include three rims from deep bowls, **1143**–**1145** (Forms 30 and 31), which are types found frequently at Ptolemaic sites throughout the oasis. A sherd from a large deep bowl, **1146**, which probably originally had two handles, represents a characteristic Ptolemaic form (Form 46), while the style of the decoration is also diagnostic of this period. A sherd from a handled jar with a collared rim and a cream-slipped exterior, **1148**, probably belongs to a vessel similar to Form 71 and should also be ascribed a Ptolemaic date. Finally, a sherd from a cooking pot with a ledged rim, **1147**, could be of Ptolemaic or Early Roman date, although without handles it is difficult to give a more precise date.

DATING

The surface pottery indicates that the site was occupied during the Late, Ptolemaic, and Early Roman periods.

BIBLIOGRAPHY

Churcher and Mills 1999: 263; Mills 1981a: 189.

42. 30/405-M1-1 (Group G)

LOCATION

This site is located 1 km south of ʻAin al-Azizi (Site 43) (FIGURE 5.11). It extends across a series of low hills and spring mounds beyond the edge of the modern cultivation.

DESCRIPTION

This is a cemetery of around 120 tombs, which has been plundered in antiquity and again recently. The surface is covered with potsherds, pieces of pottery coffin and bones. Tomb types include subterranean chambers and simple rectangular pits. The cemetery appears to be part of a broader cemetery group, which comprises 30/405-L1-2 and 31/405-L10-3 (Site 41), and which is connected to the settlement of ʻAin al-Azizi (Site 43). Three tombs were tested.

Tomb 1: Located on the northwest side of a rock outcrop. This tomb comprises a rectangular burial chamber (3 x 2 m, 1.2 m high) with a plastered stone step and remains of stone blocking (FIGURE A4.34). Within the chamber were three coffins, two of sandstone and one of pottery (lids displaced), fourteen disturbed bodies, one cloth-wrapped body in the pottery coffin (undisturbed), eleven pots, beads and a ceramic horse (FIGURE A4.33).

Tomb 2: A roughly cut pit tomb (0.6 x 1.75 m, 0.6 m deep) on the lower slope of a hill (FIGURE A4.35). A ledge is cut into the base of the tomb. The skeletal remains of at least two individuals were found in the fill. One body was partly articulated and wrapped in linen.

Tomb 3: A rectangular pit tomb (0.6 x 2.04 m, 0.85 m deep) (FIGURE A4.36). The fill comprised loose rubble and scattered bones, with a shallow layer of ash at the bottom.

POTTERY (Numbers 1149–1161)

The pottery from Tomb 1 was previously published by Hope (1981: Pl. XXVI), where it was erroneously dated as 'Roman'. Eleven pots in total were discovered in Tomb 1 (**1151**–**1161**) and the range of forms and the surface treatments encountered all point to a Ptolemaic date for this assemblage. Specifically, the two small bowls with flat bases and modelled rims, **1152** and **1153** (Forms 24 and 25), are extremely diagnostic Ptolemaic types and are found frequently at Mut al-Kharab and other Ptolemaic sites throughout the oasis. The same is true for the deep bowl with a modelled rim and ring-base, **1154** (Form 30). Of particular interest are four small squat decorated jars with modelled rims, **1155**–**1158** (Forms 51 and 52). So far these have only been encountered at four other sites in the oasis (Sites 15, 30, 52, and 56), and all from funerary-related contexts, which suggests that they might have been manufactured specifically for this function. The style of the decoration found on these vessels is characteristically Ptolemaic, and comprises red and black painted bands over a cream-slip (cf. CHAPTER 3.5). The small double-gourd, **1159** (Form 56), is also a diagnostic Ptolemaic type, which is found regularly within Ptolemaic contexts throughout the oasis. Other vessels found in the tomb include a small straight-sided bowl, **1151** (Form 38), a short-necked jar with a rounded body and simple rim, **1160** (Form 58), and the body of a miniature jar with a burnished red-slipped exterior, which is broken at the neck, **1161**. These last two vessels do not have exact parallels amongst the Ptolemaic pottery from Dakhleh; however, their similarity to other Ptolemaic types along with the fact that they were found in a sealed context, allows us to assign them a Ptolemaic date. Interestingly, eight of the vessels from Tomb 1 are stained brown or black and/or are coated with a black resinous substance. This suggests that they were used during the mummification process before being deposited in the tomb. A linen-encased mud-stopper was found with **1158**, along with traces of a black resin-like substance inside the vessel, which suggests that it was used to store the substance during embalming.

In addition to the pottery found within Tomb 1, four diagnostic sherds were collected from amongst the surface pottery. Two of these appear to be Ptolemaic in date (**1149**–**1150**); one is a sherd from a deep bowl with a modelled rim, **1149** (Form 30), while the other is a sherd from a keg with a collared rim, **1150** (Form 98). The other two sherds collected from the surface are stump bases from small restricted vessels, in wares P1a and Sc1 respectively. Bases such as these are not particularly diagnostic; however, the cream-slip points to a possible Ptolemaic date for these vessels, as does the presence of other Ptolemaic pottery at the site.

DATING

Tomb 1 clearly dates to the Ptolemaic Period. The date of Tombs 2 and 3 is uncertain as no datable evidence was recovered from these tombs. The surface pottery supports a Ptolemaic date for the site, with no evidence to indicate use during any other period.

BIBLIOGRAPHY

Churcher and Mills 1999: 260; Frey *F.N.* 1980: 75; Hope 1981; Mills, A. J. *F.N.* 1980b: 65–66; Mills L. F. *F.N.* 1980: 74–75.

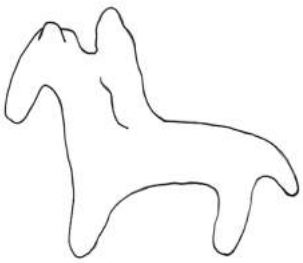


FIGURE A4.33 Site 42: Ceramic figurine of a horse and rider from Tomb 1 (scale 1:4) (after Mills L. F. F.N. *1980: 74).*

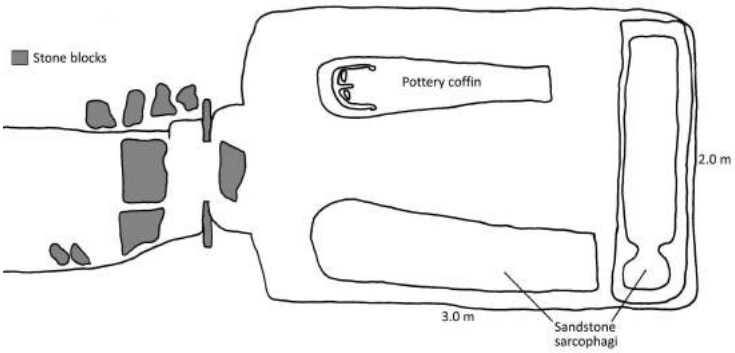


FIGURE A4.34 Site 42: Sketch plan of Tomb 1 (after Mills L. F. F.N. *1980: 74).*

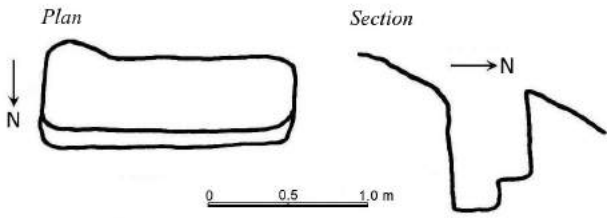


FIGURE A4.35 Site 42: Sketch plan and section of Tomb 2 (after Frey F.N. *1980: 75).*

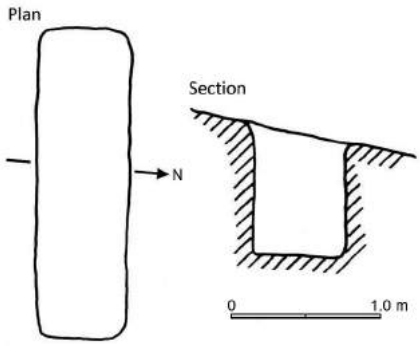


FIGURE A4.36 Site 42: Sketch plan of Tomb 3 (after Mills A. J. F.N. *1980: 65).*

43. 31/405-M9-1 ('Ain al-Azizi) (Group G)

LOCATION

This site is situated upon a series of small hills, with the temple enclosure and domestic buildings located on the southwest side of these hills. The site is bordered on the north, west and east by modern cultivation and extends into the desert on the south (FIGURE 5.11).

DESCRIPTION

This is a large settlement site comprising mud-brick domestic buildings and a ruined stone temple, which is surrounded by an extremely dense sherd scatter, measuring approximately 1.5 x 1.0 km in area (PLATES D.3 and D.4). The temple itself is not preserved above surface level, but its presence is marked by the remains of a substantial mud-brick enclosure. The dense sherd scatter, along with abundant ash and klinker, suggests the presence of kilns and industrial activity at the site. Ancient irrigation channels are located around the edges of the site. Ptolemaic coins and pottery were found on the surface. The temple and two houses were tested.

Temple: The temple appears to have been constructed from sandstone, but it is now completely ruined and so far only parts of the foundations have been revealed. The temple is surrounded by a substantial mud-brick enclosure wall, which measures 35 x 20 m in length. Within the enclosure are the remains of mud-brick rooms and a depression strewn with fragments of sandstone, including architectural pieces, which marks the location of the temple (PLATES D.3–D.6). A test trench placed within the enclosure revealed several foundation walls of mud-brick and stone (PLATE D.5). The fill comprised sand, ash, mud-brick rubble and stone blocks, including a sandstone column drum. Finds included pottery, an ostrakon, a coin and a ceramic face.

House 1: This house comprises five rooms and an open courtyard containing ovens. There are mud floors throughout. Potsherds were recovered from within the fill. A canal runs along the south edge of the house and the walls follow the curve of the canal, which suggests that the construction of the house postdates the construction of the canal.

House 2: This house comprises at least seven rooms. There are mud floors throughout and a mud bin in Room 4. The fill included sherds, rubble, ash, and grindstones.

POTTERY (Numbers 1162–1180)

An extensive collection of surface pottery was made and includes types dating to the Late, Ptolemaic and Early Roman periods (Hope 1999: 230; 2000). A limited number of these sherds were drawn and recorded, and three Ptolemaic types are presented here (**1162**–**1164**). These include a short-necked cooking pot, **1162** (Form 67), a cream-slipped jar, **1163**, and a large jar with a modelled rim, **1164** (Form 63).

Two Ptolemaic types were found on the surface of House 1 (**1165**–**1166**); these include a small cream-slipped bowl with a modelled rim and round base, **1165** (Form 20), and a sherd from a large deep bowl with modelled rim, **1166** (Form 32).

A number of vessels were found on the surface of House 2. The majority of these are small simple bowls with incurved rims and flat bases (Form 9), which is a type common to both the Ptolemaic and Early Roman periods. The remaining vessels are bowls with modelled rims, which are probably of Early Roman date.

Approximately fifty diagnostic sherds were collected from the surface inside the temple enclosure, while more than twenty-five were collected from the temple test-pit. The exact provenance of these sherds was not recorded, as the test-pit primarily contained disturbed fill. Fourteen Ptolemaic sherds from this area are illustrated here (**1167**–**1180**), while many other Ptolemaic vessels were present within the assemblage but were not drawn. The unillustrated vessels are described in the field notes as large jars with collared rims and decoration (cf. Forms 63–65), and cooking pots with horizontal loop-handles (cf. Forms 47–49), both of which are extremely diagnostic Ptolemaic types. The illustrated vessels include a small cream-slipped bowl with a round base and a red rim-band, **1167** (Form 20); a large deep bowl with a modelled rim, **1168** (Form 32); a deep cream-slipped bowl with semi-restricted rim, **1170** (Form 45); large jars with modelled rims, **1171**–**1173** (Forms 63–65); a necked jar with a thickened-rim, **1174** (Form 67); two miniature jars, **1175** and **1176**, the second of which preserves part of a handle on the neck; and several kegs with modelled rims, **1178**–**1180** (Forms 96–98). These types are comparable to material found within Ptolemaic contexts throughout the oasis.

An additional find from this site is the upper part of a keg, which is missing the rim, and which bears a stamped impression that has been applied prior to firing. The stamp design comprises a walking feline and a Greek *beta* enclosed within a rectangular border (Kaper 2000: Fig 1). This has been interpreted as the property stamp of a temple dedicated to Bastet, which might have been located in the eastern part of the oasis given the presence of cat burials at Qila al-Dabba (Kaper 2000; cf. Ginsburg 1995). The date of the keg is difficult to determine given that the rim is missing, although the fact that it appears to have had a short neck (Hope 2000: Fig. 6b), perhaps point to a Ptolemaic date.

DATING

The surface pottery indicates that the site was occupied during the Late, Ptolemaic and Early Roman periods. The date of Houses 1 and 2 is uncertain as only the surface remains have been investigated. The pottery indicates that House 1 was probably occupied during the Ptolemaic and Early Roman Periods, while House 2 was occupied during the Early Roman Period; however, it is not possible to determine when the houses were originally constructed. The temple is difficult to date as it is almost completely destroyed; however, the test-pit within the temenos produced large amounts of Ptolemaic pottery, along with some Late Period and Early Roman forms. Further excavation is necessary in order to ascertain the construction date of the temple and its enclosure.

BIBLIOGRAPHY

Churcher and Mills 1999: 260; Hope 1983: 149, 234; 1999; 2000; Kaper 2000; Mills A. J. *F.N.* 1980b: 68–70; Mills 1981a: 181; Frey *F.N.* 1980: 78–95.

44. **31/405-L4-1** (Group H)

LOCATION

This site is located 300 m north-west of Site 45 and is bordered on the north, west and south by modern cultivation (FIGURE 5.12).

DESCRIPTION

The site comprises three mud-brick structures (Buildings 1–3), which are presumably farmhouses, and which are widely spaced across a plain. Each building has multiple-rooms, which are crudely built and preserved up to 50 cm high. A sherd scatter also extends across the entire area.

POTTERY (Numbers 1181–1184)

A large number of sherds (50+) were collected from the surface of Building 1. Both Early and Late Roman types can be recognised amongst this material.

A total of fifteen diagnostic sherds were collected from the surface of Building 2, as well as several body sherds. Most of these appear to be Roman in date; however, four sherds represent diagnostic Ptolemaic types (**1181**–**1184**). These include a deep cream-slipped bowl with a modelled rim, **1181** (Form 31); a second bowl with a modelled rim, **1182** (Form 30); a short-necked cooking pot in fabric B3, **1183** (Form 67); and a large jar with a modelled rim and a black lattice design over a cream slip, **1184** (Form 65). In addition to these, three decorated body sherds in ware Dc1 were also noted, which may belong to **1184**.

DATING

Based on the surface pottery, the site appears to have been occupied during the Ptolemaic, Early Roman and Late Roman periods. The fact that Ptolemaic Period pottery was found on the surface of Building 2 may indicate that it was used during this period; however, further investigation is needed to confirm this.

BIBLIOGRAPHY

Churcher and Mills 1999: 263; Mills 1981a: 184.

45. 31/405-L4-2 (Group H)

LOCATION

This site is located on the north slope of a small mound at the southwest end of a large undulating plain, which is surrounded by modern cultivation. Rock-cut tombs belonging to Site 46 are located in the same mound (PLATE D.9; FIGURE 5.12).

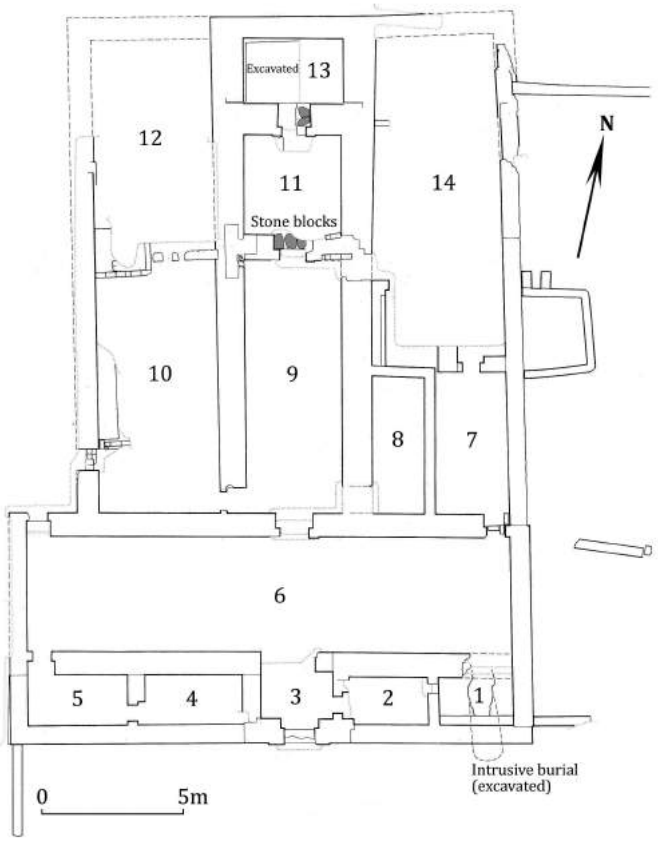


FIGURE A4.37 Site 45: Plan (after Mills 1981a: Pl. VII).

DESCRIPTION

This is a mud-brick temple, measuring 26 x 19 m, which comprises 14 interior rooms (FIGURE A4.37; PLATES D.7 and D.8). The layout suggests that this is a temple with a pylon entrance, and a series of rooms leading through to the sanctuary. The walls are 60–100 cm thick and preserved up to 1.3 m high and stone thresholds are found in places. The average brick size is 38 x 18 x 12 cm. Additional narrow walls lead from the building at several points and may represent subsidiary buildings or later additions. The western and eastern rooms were probably vaulted. Rooms 1 and 13 were tested; however, these test-pits did not extend below foundation level.

Room 1: This room contained an intrusive burial oriented north-south. Several pots were found on a shelf (35 cm high) on the south wall. No pots were associated with the burial. This burial may reflect later use of the adjacent cemetery.

Room 13 (sanctuary): Half of the room was excavated to floor level (PLATE D.8) and the floor was found to be located directly on gebel. Potsherds and a piece of modelled plaster were found in the fill.

It is curious that apart from the tombs, there are no other structures visible in the immediate vicinity of the temple. It is also not clear whether the temple and cemetery are in fact contemporary.

POTTERY (Numbers 1185–1200)

A large amount of pottery was collected from within the fill of the test-pits, and appears to be of predominantly Roman date, with both Early and Late Roman forms recognised. This may provide evidence for when the temple was abandoned but does not assist with establishing a construction date for the building.

The surface pottery includes a similar range of types to those found in the fill, with the addition of sixteen Ptolemaic sherds (**1185**–**1200**). Some of these were collected during the DOP survey, while others were identified during a visit to the site by the author in 2011.

The Ptolemaic pottery comprises several diagnostic types, including a small bowl with an incurved rim, **1185** (Form 9); a deep bowl with a modelled rim, **1187** (Form 35); large jars with modelled rims, **1188**–**1190** (Forms 64–65); a short-necked jar, **1191** (Form 67); a body-sherd from a small closed vessel with a red-slipped and polished exterior decorated with three black bands, **1192**; and numerous body-sherds from large jars decorated in characteristic Ptolemaic style, **1193**–**1200**. These comprise both floral and geometric elements painted in red and black over a cream slip (cf. CHAPTER 3.5).

DATING

The ceramic evidence indicates that the site was occupied from the Ptolemaic through to the Late Roman Period. It is unclear at what point the temple was constructed since the foundations have not been explored; however, it is likely that it was in use during the Ptolemaic and Early Roman periods, whilst the intrusive burial was possibly made during the Late Roman Period. Due to the close proximity of the cemetery (Site 46), it is possible that some of the surface pottery associated with the temple has actually derived from nearby tombs, which has confused the dating of the site. Clearly, additional excavation is needed to establish a construction date for the temple.

BIBLIOGRAPHY

Churcher and Mills 1999: 260; Mills 1981a: 181; Mills L. F. *F.N.* 1980: 21–23.

46. **31/405-M4-1** (Group H)

LOCATION

This site is situated across a series of low hills of sandstone and shale. The western edge of the site is located adjacent to Site 45 and the entire site is surrounded by modern cultivation (PLATE D.9; FIGURE 5.12).

DESCRIPTION

This is a large cemetery comprising more than 200 tombs, which occupies an area measuring 500 x 1000 m. The tombs are rock-cut with either vertical or horizontal entrances. The surface is scattered with artefacts including potsherds and fragments of pottery coffin with painted decoration. Many of the tombs show signs of recent disturbance with their shafts cleared of sand, and with pottery, bone and other material scattered around the openings (PLATE D.10).

POTTERY (Numbers 1201–1208)

A total of seven sherds were collected from the surface of the site during the DOP survey, with three additional sherds collected by the author in 2011. Altogether, four diagnostic Ptolemaic types were noted (**1201**–**1204**). These include a deep cream-slipped bowl with a modelled rim, **1201** (Form 30); a short-necked jar with a thickened rim, **1202** (Form 61); and two large cream-slipped jars with collared rims, **1203** and **1204** (Form 64). One of these sherds, **1204**, was found alongside a large number of cream-slipped body sherds, which appear to belong to a single complete vessel. This is likely to have been taken complete from one of the plundered tombs and subsequently broken. The other surface sherds appear to be both Early and Late Roman in date.

Eighteen diagnostic sherds were recovered from the fill of Tomb 1. Early Roman types are present, as well as four probable Ptolemaic types (**1205**–**1208**). These include a large deep bowl with a pronounced rim, **1205** (Form 31); a deep cream-slipped bowl with a modelled rim, **1206** (Form 45); a cream-slipped jar with a modelled rim, **1207** (Form 65); and a small closed vessel that is missing the rim, **1208** (Form 55?), which is similar to a vessel found at Mut al-Kharab (**77**2). In addition, a number of miscellaneous body sherds were collected, which also point to a Ptolemaic date. These include several body sherds from large jars in ware Sc1, a single sherd from a cream-slipped jar decorated with a black band (ware Dc1), and several body sherds in ware P9.

DATING

Based on an analysis of the surface pottery the site appears to have been in use from the Ptolemaic through to the Late Roman Period. Tomb 1 is difficult to date due to its disturbed nature; however, the associated pottery points to a possible Ptolemaic date for its construction, with subsequent disturbance and reuse during the Early Roman Period.

BIBLIOGRAPHY

Churcher and Mills 1999: 261; Mills 1981a: 189.

47. **31/405-N3-1** (Group H)

LOCATION

This site is located 1.6 km north-east of Site 45 and close to the southern edge of the escarpment foothills. It is situated on top of a series of adjacent mounds, the largest measuring 120 x 60 m and 3 m high, which are surrounded by modern cultivation (FIGURE 5.12).

DESCRIPTION

This is a large settlement comprising a series of mud-brick building complexes, which occupy an area measuring approximately 300 x 100 m. At least 145 rooms can be seen on the largest mound, many belonging to a single complex. Other small complexes of six or more rooms can be seen throughout the site and these are separated by narrow lanes or passages. Traces of vaulting can be seen in many places. One room was tested.

Test 1: This is located at the southeast corner of the largest mound. It comprises a long vaulted room (6.2 x 2.3 m) without a lateral entrance (FIGURE A4.38). The walls are white plastered. The room was buried in sand almost to the crown of the vault (2.8 m high). Pottery, mud-bricks and animal bone were found in the sand fill.

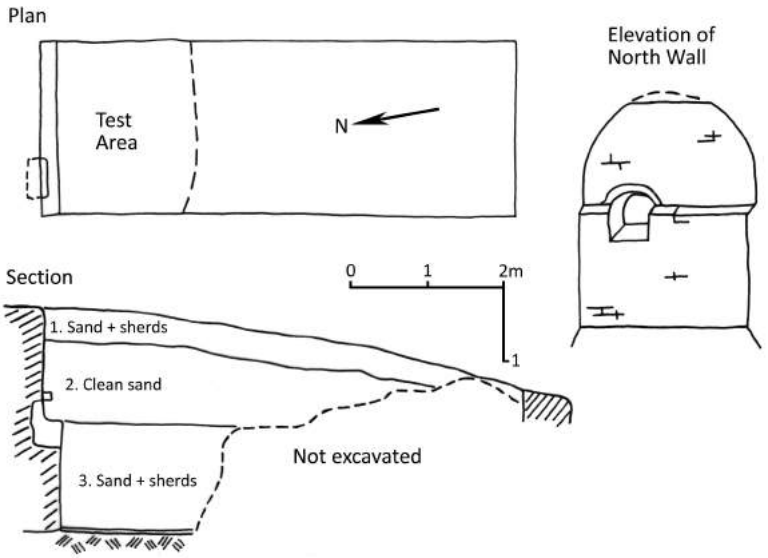


FIGURE A4.38 Site 47: Plan and section of Test 1 (after Mills A. J. F.N. *1980b: 13).*

POTTERY (Numbers 1209–1211)

Three diagnostic sherds were recovered from the upper fill of Test 1 (Level 1 on plan), along with a large number of miscellaneous body sherds. Two sherds represent Ptolemaic types, including a small cream-slipped jar, **1209**, and a large jar with a collared rim, **1210** (Form 64).

A total of twenty sherds were collected from the lower fill of Test 1 (Level 3 on plan). These seem to be predominantly of Late Roman date, with some possible Early Roman types and a single sherd that appears to be of Ptolemaic date, **1211**. This is a sherd from a large cream-slipped jar with a collared rim and red rim-band (Form 64). Both the form and the ware are characteristic of the Ptolemaic Period pottery tradition in Dakhleh.

Whilst a surface collection was made, no diagnostic Ptolemaic types were noted.

DATING

The pottery indicates that a substantial phase of occupation occurred during the Late Roman Period. The presence of three possible Ptolemaic types is not enough in itself to demonstrate a Ptolemaic phase of occupation, yet it does raise the possibility that some Ptolemaic activity took place at the site. Further investigation is needed in order to determine the full extent of this activity.

BIBLIOGRAPHY

Churcher and Mills 1999: 263; Mills A. J. *F.N.* 1980b: 13–16; 1981a: 185.

48. 31/420-B9-1 (Group J)

LOCATION

This site is located 1 km north-west of Site 49 (FIGURE 5.13). It is situated on a low mound, which is surrounded by modern cultivation.

DESCRIPTION

This is a small settlement site comprising traces of mud-brick walls with a small *pisé* building at the north end. The surface is covered by a dense sherd scatter measuring 100 x 125 m.

POTTERY (Numbers 1212–1215)

Twelve diagnostic sherds were collected from the surface of the site, four of which represent diagnostic Ptolemaic types (**1212–1214**). These include a deep cream-slipped bowl with a modelled rim, **1212** (Form

30); a large cream-slipped jar with a collared rim, **1215** (Form 64); and two cooking pots with internal ledge rims and horizontal loop-handles, **1213** and **1214** (Form 47). A body sherd from a cream-slipped jar was also noted, and probably belongs to **1215**. Early Roman types are also recognisable amongst the surface pottery, as well as possible Late Period forms.

DATING

Based on the surface pottery, the site appears to have been occupied during the Ptolemaic and Early Roman periods, with possible activity as early as the Late Period.

BIBLIOGRAPHY

Churcher and Mills 1999: 261; Mills *F.N.* 1981b: 12; 1982: 98.

49. 31/420-C9-1 (Group J)

LOCATION

This site is located 1 km south-east of Site 48 and close to the southern limit of the oasis (FIGURE 5.13). It is almost completely covered by modern cultivation.

DESCRIPTION

This appears to be a habitation site; however, no structural remains are visible. The surface is covered by a sherd scatter measuring 100 x 100 m. A small amount of surface pottery was collected.

POTTERY (Numbers 1216–1220)

A total of eight diagnostic sherds were collected from the surface of the site. Apart from a single sherd that can be dated to the Roman Period, these sherds all appear to be Ptolemaic types. These include a cream-slipped straight-sided bowl with a thickened rim, **1216**; a cream-slipped bowl with a rounded out-folded rim, **1217**; a large cream-slipped jar with a modelled rim and red rim-band, **1218** (Form 65); a keg with a simple out-folded rim, **1219** (Form 94); and a cream-slipped ring-stand with a pronounced out-folded base, **1220** (Form 100a). Other sherds that were recorded but not illustrated include a small rim sherd from a jar in ware Sr8 (fabric B3), and a body sherd from a cream-slipped jar with a small vertical handle. Overall, these types are comparable to those found within Ptolemaic contexts at Mut al-Kharab. In particular, the predominance of cream-slipped vessels, as well as the presence of a vessel in fabric B3, is indicative of a Ptolemaic date for this assemblage.

DATING

The surface pottery indicates that the site was occupied during the Ptolemaic Period. There may have been continued activity during the Roman Period, as a single Roman sherd was discovered, but this alone is not enough to confirm activity at the site during this period.

BIBLIOGRAPHY

Churcher and Mills 1999: 261; Mills *F.N.* 1981b: 10; 1982: 99.

50. 31/420-B10-1 (Beit el-Qaresh) (Group J)

LOCATION

This site is located approximately 1 km south of Site 49, amongst the low hills at the southern edge of the oasis (FIGURE 5.13).

DESCRIPTION

This is a cemetery of 300 or more graves, along with ten large mud-brick mausolea, which have been completely plundered (PLATES D.11 and D12). The graves are located amongst the hills while the mausolea are situated on the plain immediately to the north. Some of the grave shafts were cleared and carved stone doorways were noted in several cases (PLATES D.13 and D14). Pottery, human skeletal remains and fragments of anthropoid pottery coffins are strewn across the surface of the site. The mud-

brick mausolea are well-preserved and are very similar to those found at the nearby site of Ismant al-Kharab (Site 53; cf. Hope 2003b: 252ff). Based on this comparison they should probably be dated as Early Roman. Some of the shaft graves are likely to be Ptolemaic based on the surrounding surface pottery. The site has been heavily plundered, with many tombs cleared and their contents spread across the surface of the site.

POTTERY (Numbers 1221–1224)

A total of fifteen diagnostic sherds were collected from the surface of the site. Most of these are Early and Late Roman types; however, several potential Ptolemaic types are also present (**1221–1224**). These include a small carinated bowl, **1221** (Form 36); a deep bowl with a modelled rim, **1222** (Form 45); a necked jar with a modelled rim and two small vertical handles attached to the shoulder, **1224**; and a large jar with a modelled rim and black and red painted decoration on the shoulder, **1223** (Form 65). Both the form and decoration of this last vessel are extremely characteristic of the Ptolemaic pottery tradition in the oasis. During a visit to the site in 2009, several Late Period types were also noted by the author amongst the surface pottery.

DATING

Based on an analysis of the surface pottery, the rock-cut tombs appear to have been constructed and used during the Late, Ptolemaic and Early Roman periods. The mud-brick mausolea were probably constructed during the Early Roman Period, based on comparisons with similar structures at Ismant al-Kharab.

BIBLIOGRAPHY

Churcher and Mills 1999: 261; Mills 1982: 98.

51. **31/420-D10-1** (Group J)

LOCATION

This site is located approximately 1 km south-east of Site 49, amongst a series of low hills at the southern edge of the oasis (FIGURE 5.13)

DESCRIPTION

This is a cemetery of several tombs, all of similar size and style. Each comprises a mud-brick structure with four rectangular rooms. The surface of the site is covered by a scatter of potsherds and bones, with mud-brick walls visible in places. The south-west room of one tomb was tested (FIGURE A4.39). The fill included skeletal remains and pottery.

POTTERY (Numbers 1225–1231)

Four complete vessels were recovered from the fill of the tested room, as well as five additional diagnostic sherds and several body sherds. All of the vessels are clearly of Ptolemaic date, and are types that are regularly encountered at Mut al-Kharab and at other Ptolemaic sites within the oasis. They include a small flat-based bowl, **1225** (Form 19); two small, cream-slipped footed bowls with an external groove below the rim, **1226** and **1227** (Form 24); two deep cream-slipped bowls with modelled rims, and red rim-bands, **1228** and **1229** (Form 30); a small red-slipped spouted vessel with a cream rim-band, **1230** (Form 84); and a large cream-slipped jar with a collared rim and red rim-band, **1231** (Form 64). Two ring-bases, in wares Sc1 and P1a were also found, along with a number of body-sherds from large jars in wares P1a and Sc1. It is unclear whether or not these belong to the fragmentary vessels within the assemblage, since it is likely that additional vessels are located within the unexcavated fill of the tomb.

DATING

Based on the associated pottery, Tomb 1 was clearly in use during the Ptolemaic Period. It is unclear whether the site was in use during any other period, as a collection of surface pottery was not made and no other tombs were tested.

BIBLIOGRAPHY

Mills *F.N.* 1981b: 13–14.

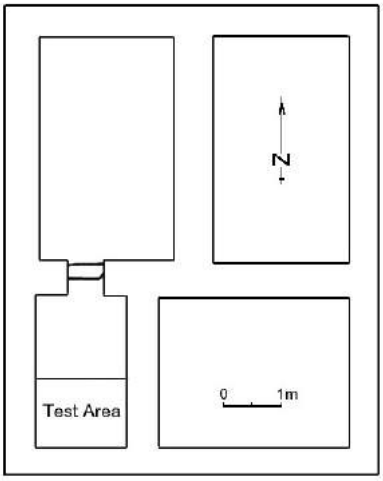


FIGURE A4.39 Site 51: Plan of Tomb 1 (after Mills F.N. *1981b: 13).*

52. 31/420-C5-1 (K1; Kellis West Cemetery) (Group K?)

LOCATION

This site is located approximately 500 m north-west of Ismant al-Kharab (Site 53). The tombs are cut into the face of a series of low sandstone hills that form the west side of a wadi (FIGURE 5.14).

DESCRIPTION

This is a large cemetery comprising approximately 300 rock-cut tombs (Birrell 1999). The surface of the site is littered with bones and potsherds. The average tomb size is 3 x 2 m and 1 m high and the entrances to the tombs are flanked by vertical stone slabs and are sealed with an additional stone slab. Many of the tested tombs have multiple burials and the bodies are generally mummified (Aufderheide *et al.* 2003), occasionally with cartonnage coverings over the head and feet (Schweitzer 2002). Radiocarbon dating of the bodies from Tombs 2, 3, 4, 8, 12 and 21 indicates a Ptolemaic date. Stylistic analysis of the cartonnage from Tombs 1, 7, 8, 10, 13 and 18 also indicates a possible Late Ptolemaic date for these tombs (Schweitzer 2002).

Tomb 13: Three bodies were found in this tomb. Two of these were covered with painted cartonnage masks (the style indicates a Ptolemaic date; cf. Schweitzer 2002). Also in the tomb were four intact pots, two of which were sealed with mud stoppers wrapped in linen (Birrell 1999: Pl. 9). A small basket made of plant fibre was also found.

POTTERY (Numbers 1232–1235)

The four vessels from Tomb 13 appear to be of Ptolemaic date (**1232–1235**). These include a small simple bowl, **1232** (Form 9c); a small pear-shaped jar with a narrow neck and modelled rim, **1233** (Form 55); and two small squat jars with modelled rims and flat bases, **1234** and **1235** (Form 51), the second of which is cream-slipped and decorated with red bands. Both the form and decoration of this last vessel are characteristic of the Ptolemaic Period. Number **1233**, is paralleled at Site 64 (unillustrated), whilst a rim fragment from Site 04 (**821**) may derive from a similar form. One of the vessels, **1234**, is coated with a black resinous substance, while two other vessels, **1233** and **1235**, retain their mud stoppers. There is also a cord tied around the neck of **1233**. These features indicate that the vessels probably held resin that was used for embalming.

DATING

Based on the proximity of this site to Ismant al-Kharab, as well as the date of the tombs and their associated goods, the cemetery appears to have been in use from the end of the Ptolemaic Period and throughout the Early Roman Period. While both radiocarbon dating and stylistic analysis of the cartonnage suggest a Ptolemaic date for several of the tombs the results should be used with caution. Tomb 13 is probably Ptolemaic date based on the pottery.

BIBLIOGRAPHY

Aufderheide *et al.* 2003: 137; Birrell 1999: 29–38; Churcher and Mills 1999: 260; Molto 2001: 86; Schweitzer 2002: 269–276.

53. 31/420-D6-1 (Ismant al-Kharab; *Kellis*) (Group K?)

LOCATION

This site is located 500 m south-east of Site 52 and 3.5 km west of Qasr el-Haleka (Site 55). It is situated in a large undulating plain, which is bordered on the west and south by modern cultivation (FIGURE 5.14).

DESCRIPTION

This is a large settlement comprising two temples, three churches, administrative buildings, a bath house, domestic buildings, mausolea and cemeteries (FIGURE A4.40). The site has been subject to detailed investigation for more than thirty years. Numerous reports on this work can be found in the *Bulletin of the Australian Centre for Egyptology* (e.g. Hope 2001b; 2002a; 2004a; 2005a; Hope *et al.* 2010) and in the *Dakhleh Oasis Project Monograph Series* (e.g. Dunsmore 2002; Hope 2002b; 2003b). Most of the remains date from the Early Roman to Late Roman periods; however, there is some evidence for Late Ptolemaic Period activity at the site. The adjacent cemetery 31/420-C5-1 (Site 52) appears to have also been used during the Late Ptolemaic Period.

There is some evidence from the Main Temple (Area D; FIGURES A4.40 and A4.41) that is indicative of Late Ptolemaic activity in this area. This includes a stone pedestal (Reg.1D/8; I.87) bearing a Demotic inscription, which has been dated palaeographically by Tait (in Bagnall *et al*. 2002: 50) to the Late Ptolemaic Period, even as early as the 2nd century BCE. The inscription reads …*m-bꜣḥ ṯwtw*, '…before (the god) Tutu'. In addition, more than a hundred fragments of Demotic texts written on papyrus were discovered within the south-eastern corner of Room 3 of the Main Temple. These mention measurements and proportions in relation to parts of a building, and twice mention the term *pꜣ smꜣ št*, 'the slaying of Seth' (Tait 2002: 297). Tait (2002: 297) dated the texts palaeographically to the 1st century BCE or early 1st century CE.

Whilst the Demotic texts alone are not evidence enough to confirm the theory that a temple existed here during the Ptolemaic Period, there are several additional pieces of evidence that support this idea. The earliest phase of construction for the temple comprised the sanctuary (Room 1) and gateway (1A). The exact date of these structures is not known; however, a date in the 1st century CE is likely as the earliest datable inscription from the temple dates from the reign of Nero (54–68 CE; Bagnall *et al.* 2002; Hope 2002b: 186–187). There is also evidence for an earlier structure that predates the Main Temple; the foundations of a rectangular stone structure have been located beneath Rooms 3 and 4 of the Main Temple (FIGURE A4.41; Hope 2002b: 181; Dobrowolski 2002: 124; Whitehouse and Hope 1999: 95 and Pl.2), while numerous stone blocks comprising architectural elements, which were found built into the walls of the temple and in the associated rubble, probably belong to this earlier structure (Hope 2002b: 181, 187). There are also traces of mud-brick structures in the West Court of the temple, which may also be associated with this earlier structure (Hope 2002b: 187). Based on the nature of the architectural elements, the location of the structure, and the Demotic texts, I tentatively propose that a Late Ptolemaic temple once stood at the site.

Area C is a collection of domestic buildings in the eastern part of the site (FIGURES A4.40 and A4.42). The associated finds indicate that these buildings were used during the Early Roman Period before being abandoned. Some of the pottery found in this area points to a date close to the end of the Ptolemaic Period or very beginning of the Roman Period. Area C/2/4 incorporates a potter's workshop within which kilns and a fragment of potter's wheel were found. A similar potter's wheel, apparently of Ptolemaic date, was found at Naukratis (Eccleston 2006: 85; cf. Leonard and Berlin 1997: 294).

POTTERY (Numbers 1236–1242)

Some potential Ptolemaic types were noted from the surface of Area C/2 (**1236–1242**). These include two large bowls with modelled rims, **1236** and **1237** (Forms 31 and 32); two jars with collared rims, **1238** and

1239 (Form 64); a cream-slipped keg with a collared rim and single vertical handle attached at the shoulder and rim, **1240**; and two short-necked jars with modelled rims and polished exteriors, **1241** and **1242** (Form 63). A single small sherd of Egyptian Barbotine ware was discovered on the surface near the western edge of the C/2 complex (Hope 2002b: 178), whilst a single sherd of Meroitic ware was also found nearby (C. Hope pers. comm. 2011). These finds point to potential Ptolemaic activity in this area.

DATING

The site was clearly occupied during both the Early and Late Roman periods, with a substantial phase of occupation during the 4th century CE. Whilst not extensive, there is a range of material that seems to point to activity at the site from the end of the Ptolemaic Period.

BIBLIOGRAPHY

Bagnall *et al.* 2002; Churcher and Mills 1999: 260; Dobrowolski 2002; Eccleston 2006; Hope 2002b; 2003b; 2004; Tait 2002: 297; Whitehouse and Hope 1999.

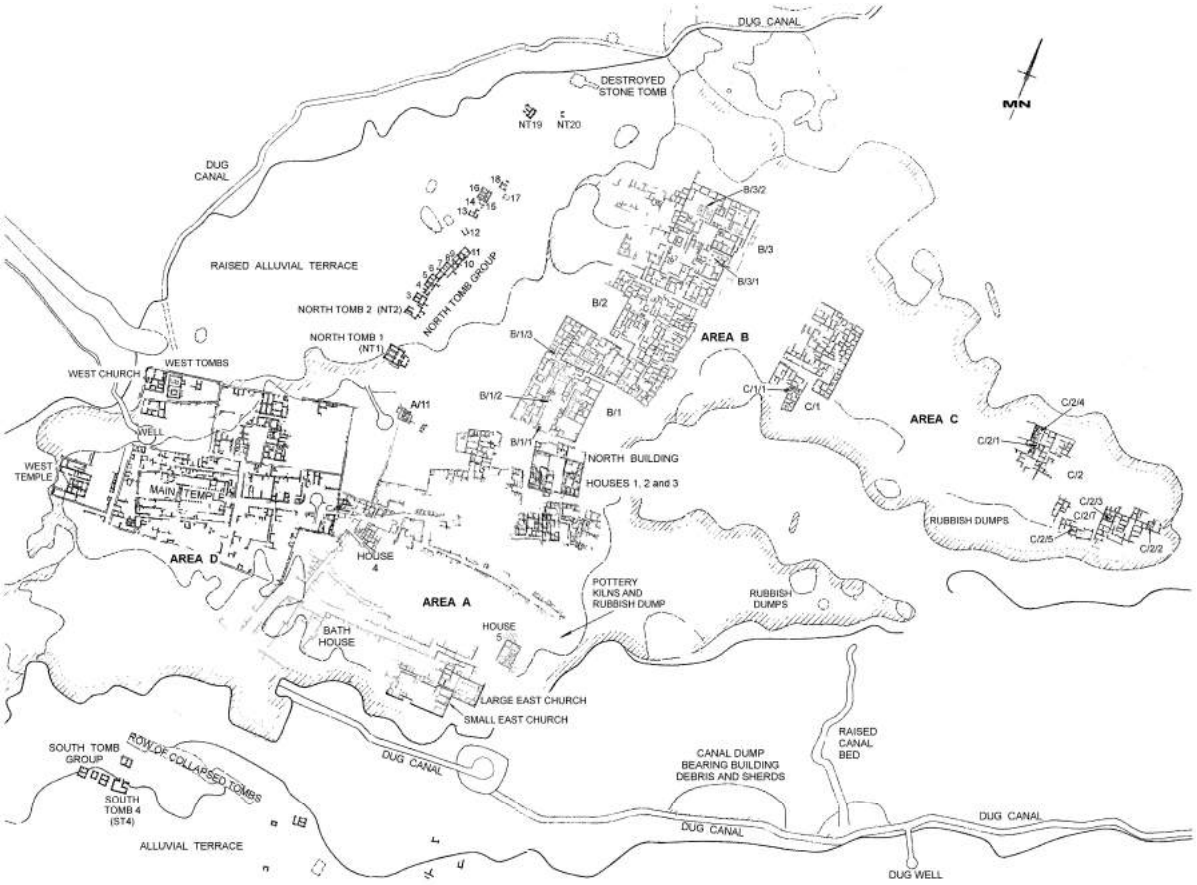


FIGURE A4.40 Ismant al-Kharab (Site 53): General Plan.

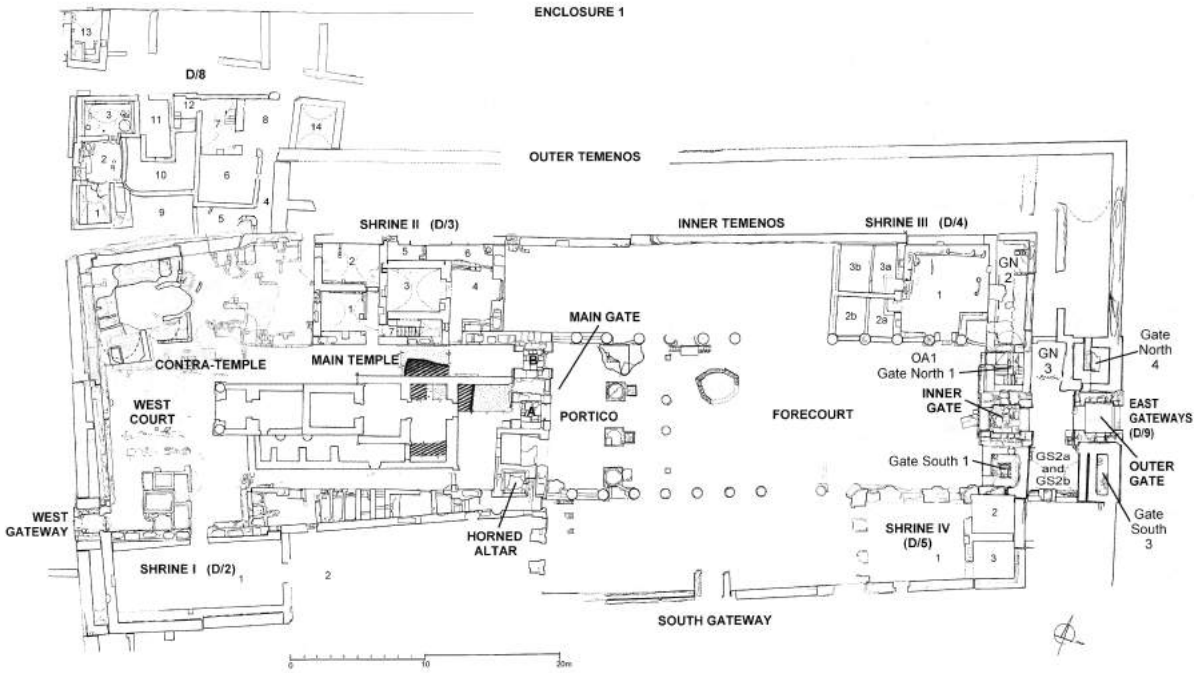


FIGURE A4.41 Ismant al-Kharab (Site 53): Plan of Main Temple showing remains of an earlier structure (shaded) beneath Room 3 (adapted from Dobrowolski 2002: 124 and Hope 2002: 177).

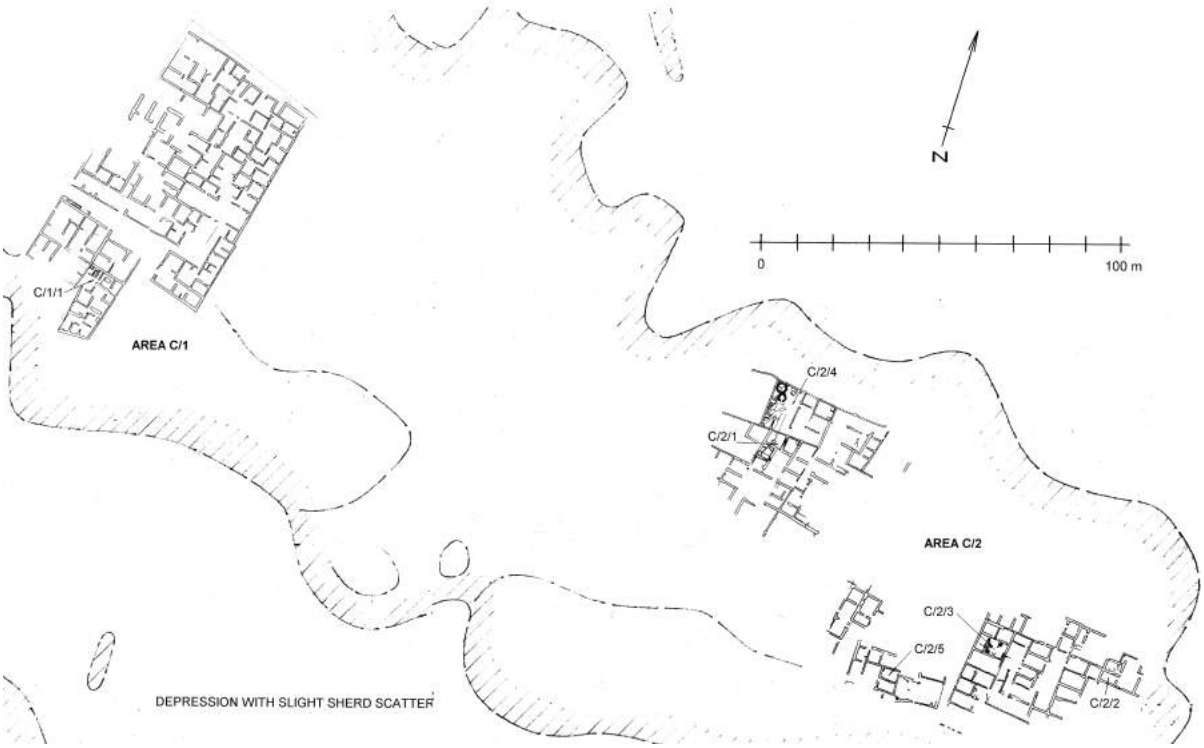


FIGURE A4.42 Ismant al-Kharab (Site 53): Plan of Area C (after Hope 2002: 174).

54. 31/420-G6-4 (Group K)

LOCATION

This site is located approximately 1 km west of Qasr el-Haleka (Site 55), and is situated in an area of undulating ground, which is surrounded by modern cultivation (FIGURE 5.14).

DESCRIPTION

This is a habitation site comprising traces of mud-brick buildings, which are surrounded by a sherd scatter measuring 75 x 100 m. The buildings are preserved less than 1 m in height.

POTTERY (Numbers 1243–1248)

A total of twenty-six sherds were collected from the surface of the site. The majority of these appear to be of Early Roman date; however, six sherds represent potential Ptolemaic types (**1243–1248**). These include three deep bowls with modelled rims, **1243–1245** (Forms 30–32); a deep bowl with a slightly restricted, modelled rim, **1246** (Form 43?); a large jar with a modelled rim, **1247** (Form 65); and a keg with an angular rim, **1248** (Form 96). Overall, these types are comparable to those found elsewhere in the oasis.

DATING

The surface pottery indicates that the site was occupied during the Ptolemaic and Early Roman periods.

BIBLIOGRAPHY

Churcher and Mills 1999: 264; Mills 1982: 100.

55. 31/420-G6-2 (Qasr el-Haleka) (Group K)

LOCATION

This site is located 3.5 km east of Ismant al-Kharab (Site 53) and 500 m north-west of Site 56 (FIGURE 5.14). It is built upon a spring mound, which stands isolated in the middle of a wide gravel plain. The modern cultivation is encroaching along the north-western edge of the plain.

DESCRIPTION

This is an imposing mud-brick structure measuring 25 x 50 m, with large exterior walls preserved up to 8 m high at the south-east corner (PLATES D.15–17). It comprises at least 40 rooms, some of which preserve vaulting and traces of white plaster, and is three storeys high (PLATE D.18). Based on the layout, this structure has been interpreted as a temple (Mills 1983: 129). A dense sherd scatter covers the area in and around the structure. There are also tombs and domestic mud-brick buildings in the general vicinity, which are possibly part of the site; however, there are no visible architectural remains in the area immediately around the structure, although this could be due to deflation (PLATES D.15 and D.16). The imposing nature of the structure is largely due to its position upon the spring mound.

POTTERY (Numbers 1249–1264)

Fourteen sherds were collected from the surface of the site during the DOP survey, whilst an additional collection of about twenty sherds was made when upper sections of the fill were cleared in order to enable a plan of the structure to be drawn. The majority of the pottery dates to the Ptolemaic and Early Roman periods, although several potential Late Period types were also noted by the author during a visit in 2009.

A total of sixteen Ptolemaic sherds are presented here (**1249–1264**); however, many other Ptolemaic vessels were noted by the author during a visit to the site. These were similar to the types presented below and were therefore not recorded. The Ptolemaic vessels include four deep bowls with modelled rims, two of which are cream-slipped, **1249–1252** (Form 30); three deep bowls with semi-restricted modelled rims, **1253–1255** (Forms 34–35), all of which are cream-slipped, and one of which (**1254**) is also decorated with black bands; a deep carinated bowl with small vertical handles and a cream-slipped exterior, **1256** (Form 46?); two short-necked jars with thickened rims, **1257** and **1258** (Form 61), one of which is cream-slipped; a globular jar with a modelled rim and one or more small vertical handles attached to the

shoulder, **1259**; four large cream-slipped jars with modelled rims, **1260–1263** (Form 65); and part of a flask with a small vertical handle preserved on the shoulder, **1264**.

DATING

The site was clearly in use primarily during the Ptolemaic and Early Roman periods, based on an analysis of the surface pottery. There may also have been some Late Period activity at the site, as several sherds of this date were noted amongst the surface pottery; however, the number of sherds is small in comparison to those of Ptolemaic and Early Roman date. At this stage it is not possible to propose a date for the construction of the building, as neither the interior nor the foundations have been explored.

BIBLIOGRAPHY

Churcher and Mills 1999: 261; Mills *F.N.* 1981b: 34; Mills 1982: 100; 1983: 129.

56. 31/420-H7-1 (Group K)

LOCATION

This site is located 500 m south-east of Qasr el-Haleka and is situated amongst the low hills on the desert edge (FIGURE 5.14).

DESCRIPTION

This is a large cemetery of around 300 tombs, situated in an area measuring 400 x 500 m. Some of the tombs are marked by surface depressions, while others preserve traces of mud-brick structures. Many have been plundered. One tomb was tested (Tomb 1). This is a single vaulted room measuring 3.2 x 3.3 m and preserved 0.4 m deep (FIGURE A4.43). It had been disturbed and the fill comprised mud-brick rubble, the scattered skeletal remains of an adult human, pottery, and fragments of painted cartonnage.

Three complete vessels were found by members of the DOP outside the entrance of a tomb, somewhere in the vicinity of this site. These vessels were presumably removed from the tomb by robbers looking for more valuable antiquities, although it is also possible that they were intentionally placed outside the tomb as an offering to the deceased. As the tomb was not explored it is impossible to know which scenario is more likely. The location of the tomb was recorded simply as 'near Qasr el-Haleka' (Site 55); however, the tomb is assumed by the author to belong to Site 56, as this is the only known cemetery in the vicinity. This tomb is identified here as Tomb 2.

POTTERY (Numbers 1265–1271)

Three diagnostic sherds were collected from the fill of Tomb 1, in addition to a single complete vessel, and all four vessels represent characteristic Ptolemaic types (**1265–1268**). They include a shallow bowl with a thickened rim, **1265** (Form 9c); a small cream-slipped bowl with a flat base and a slight indentation on the exterior below the rim, **1266** (Form 25); a deep bowl with a modelled rim, **1267** (Form 30); and a short-necked cooking pot with a thickened rim in fabric B3, with red-slipped exterior, **1268** (Form 67).

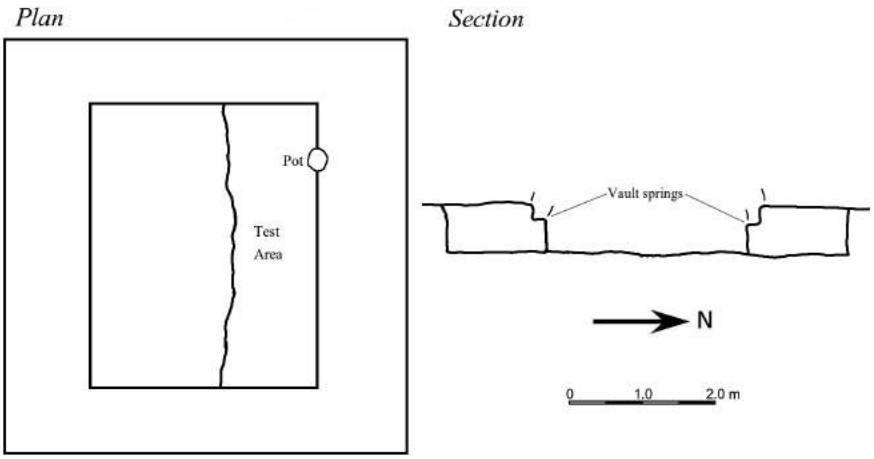


FIGURE A4.43 Site 56: Sketch plan and section of Tomb 1 (after Mills F.N. *1981b: 35).*

The three vessels found outside the entrance of Tomb 2 are also of Ptolemaic date (**1269–1271**). These include a small squat jar with a modelled rim and flat base, and with an incised pot-mark on the upper body, **1269** (Form 51); a large cream-slipped jar with a modelled rim and black and red painted decoration on the shoulder, **1270** (Form 63); and a large handled-jug with a short neck, collared rim, and ring-base, **1271** (Form 71). The squat jar, **1269**, appears to have been used exclusively in tomb contexts. The large decorated jar, **1270**, is an extremely common Ptolemaic type, and importantly this is one of the few complete examples found in the oasis. The handled-jug, **1271**, also represents one of the few complete examples of this type of vessel.

DATING

Based on the associated pottery, Tombs 1 and 2 both date to the Ptolemaic Period. Further investigation is needed in order to determine whether the cemetery was in use during any other periods.

BIBLIOGRAPHY

Mills *F.N.* 1981b: 35–36.

57. 31/435-D3-2

LOCATION

This site is located approximately 4.5 km south-west of Qila el-Dabba (Site 58). It is situated on a small mound, 25 m in diameter, in the midst of modern cultivation (FIGURE 5.18).

DESCRIPTION

This site comprises a sherd scatter and several mud-brick walls. The overall plan of the structure is unclear, although there are traces of white gypsum plaster and the walls are particularly thick, suggesting that the structure may have originally comprised more than one storey.

POTTERY (Numbers 1272–1273)

A total of seven diagnostic sherds were collected from the surface of the site, as well as several miscellaneous body sherds. Two of these are Ptolemaic types, and include a small double-gourd with a cream-slipped exterior, **1272** (Form 56), which is a type found frequently within Ptolemaic contexts at other sites in the oasis, as well as the lower half of a small flat-based jar, **1273**, which probably belongs to a vessel comparable to Forms 68 or 69. Other types were found on the surface and are described as jars with short out-folded rims in wares P1a and Sc1, which are potentially Ptolemaic, but as they have not been drawn it is impossible to be sure. A rim from a cooking pot with an internal ledge in fabric B3 was also noted, as well as number of body-sherds with traces of burning in ware Sr8 (fabric B3). These finds further support a Ptolemaic date for this site. A single possible Late Roman type was also recorded.

DATING

Based on the small amount of evidence presented above, it appears that this site was occupied during the Ptolemaic Period, and possibly again during the Late Roman Period. Further investigation is needed in order to confirm this dating.

BIBLIOGRAPHY

Churcher and Mills 1999: 261; Mills 1983: 135.

58. 31/435-G2-1/2 (Qila el-Dabba)

LOCATION

This site is located approximately 1 km west-south-west of ‘Ain Asil, and is situated along the eastern edge of a long, low ridge (FIGURE 5.18).

DESCRIPTION

This is a cemetery dominated by a series of monumental mud-brick mastabas of Old Kingdom date, which are surrounded by subsidiary burials of later periods (Minault-Gout 1992). Two tombs built on the east side of Mastaba II (East Cemetery) may date to the Ptolemaic Period (FIGURE A4.44). These tombs comprise large vaulted burial chambers, which are accessed through well-built shafts. Demotic ostraka were found built into the vaults of these tombs and apparently date to the late Pharaonic or Early Ptolemaic Period (Giddy 1987: 181; Vercoutter 1977: 278). It is thus possible that the tombs were built during the Early Ptolemaic Period.

Mastaba II Area CD represents a concentration of graves, which are dated to the 2nd century BCE. These burials had been disturbed and heavily plundered. A study of the skeletal remains has identified four cases of leprosy (Dzierzykray-Rogalski 1978; 1980). On the north side of Mastaba II (North Cemetery), Tomb 7 yielded the remains of more than twenty cat burials. These have been dated to the Late Period or Ptolemaic Period (Ginsburg 1995; cf. also Kaper 2000).

POTTERY (Number 1274)

A single complete vessel was found in the fill of Mastaba II (**1274**). Its presence is clearly the result of reuse of the mastaba in later times. It has been assigned a Roman date by the excavators (Minault-Gout 1992: 183, 202); however, this form is found elsewhere in Dakhleh within Ptolemaic contexts (Form 90; cf. **838**, **1019**).

DATING

An important phase of activity at the site took place at the end of the Old Kingdom, during Dynasties V and VI, when the large mastabas were built for the governors of the oasis. These were apparently surrounded by subsidiary burials during the Late, Ptolemaic and Roman periods. There seems to be evidence for Ptolemaic activity around Mastaba II.

BIBLIOGRAPHY

Dzierzykray-Rogalski 1978; 1980; Giddy 1987: 174, 181; Ginsburg 1995; Minault-Gout 1992: 183, 202.

59. 31/435-J4-2 (Group L)

LOCATION

This site is located 2.5 km north-west of ʻAin Birbiyeh (Site 69) and 1 km west of Site 62. It is situated on a small hill, which is partly surrounded by modern cultivation (FIGURE 5.15).

DESCRIPTION

This site comprises a single mud-brick building at the top of the hill, along with a pottery kiln at the base. The building is made up of twelve or more contiguous rooms, most with vaulted ceilings. A sherd scatter surrounds the building.

POTTERY (Numbers 1275–1276)

A total of sixteen diagnostic sherds were collected from the surface of the site. These appear to be predominantly Early Roman in date, apart from two sherds that represent Ptolemaic types (**1275–1276**). These include a large jar with a collared rim, **1275** (Form 64); and a possible double-gourd, **1276**.

DATING

The surface pottery indicates that the site was probably occupied during the Ptolemaic and Early Roman periods.

BIBLIOGRAPHY

Churcher and Mills 1999: 261; Mills 1983: 136.

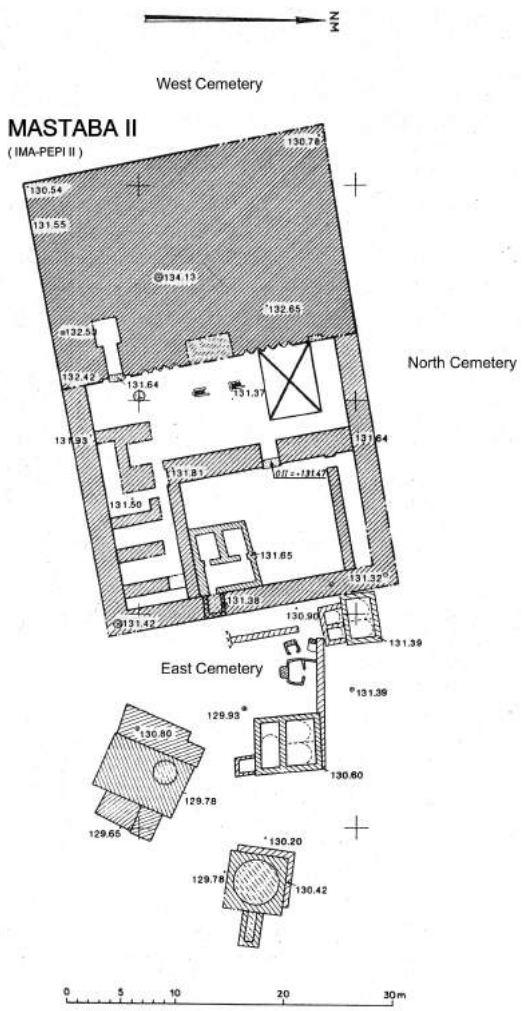


FIGURE A4.44 Qila el-Dabba (Site 58): Plan of Mastaba II and later tombs in the East Cemetery (after Minault-Gout 1992: 10).

60. 31/435-L2-5 (Group L)

LOCATION

This site is located 1 km north of Sites 61 and 62. It is situated on two small adjacent hills at the western end of a large sandy plain (FIGURE 5.15).

DESCRIPTION

This is a settlement comprising a series of mud-brick buildings preserved up to 1 m high, which are surrounded by a sherd scatter measuring 150 x 200 m. Two pottery kilns are located on an adjacent mound.

POTTERY (Numbers 1277–1280)

Fifteen diagnostic sherds were collected from the surface of the main mound, while another fifteen were collected from the surface of the adjacent mound where the kilns are located. Both groups of sherds largely comprise Late Roman types, along with several types that can be dated to the Ptolemaic and Early Roman periods.

Four Ptolemaic sherds are present amongst this material (**2177–1280**), with two found on the surface of each mound. These include a short-necked jar with a modelled rim, **1277** (Form 60); a short-necked cooking pot with a thickened rim, **1278** (Form 67); and two large jars with angular modelled rims, **1279** and **1280** (Forms 63 and 65), the second of which is red-slipped.

DATING

The surface pottery indicates that a substantial phase of occupation occurred during the Late Roman Period. There also appears to have been some activity at the site during the Ptolemaic and Early Roman periods, although further investigation is needed in order to determine the nature of this activity.

BIBLIOGRAPHY

Churcher and Mills 1999: 264; Mills 1983: 139.

61. 31/435-K3-1 (Winlock's 'Site 2, North of Tenideh') (Group L)

LOCATION

This site is located approximately 2.3 km north of 'Ain Birbiyeh (Site 69) and is adjacent to Site 62. It is situated at the south-western end of a large sandy plain (FIGURE 5.15).

DESCRIPTION

This is an axial mud-brick temple, 30 m long and preserved up to 5 m high (FIGURE A4.45). It is entered on the south through a pylon 6 m wide and 1.5 m thick at the base, with an arched gateway. In front of this Winlock (1936: 17–18) found a large sandstone block that might have been a lintel. The gateway leads into a large hall, followed by three successive, smaller rooms. The hall was vaulted and probably also the other rooms. There are also traces of mud-brick walls in front of the pylon. There is clear evidence for reuse and renovation, with multiple floors identified, along with several layers of occupational debris. The fill mainly comprises mud-brick collapse from the vaulted roof. The temple stands within a settlement (Site 62), and appears to be contemporary with it.

POTTERY (Numbers 1281–1284)

Approximately fifty diagnostic sherds were collected from the surface of the site, whilst many more were recovered from the fill of the various rooms that were cleared. The majority of the pottery dates to both the Early and Late Roman periods, with the addition of several sherds that point to potential Ptolemaic activity at the site.

The Ptolemaic types include a deep bowl with a thickened rim, **1281** (Form 30); a large deep bowl with a semi-restricted rim, **1282** (Form 43); a small jar with a flat base, a flaring rim and a vertical handle attached to the shoulder and rim, **1283** (Form 68); and a short-necked jar with a rounded rim and cream-slipped exterior, **1284** (Form 59). In addition, several decorated body-sherds were recovered from sub-floor deposits in the ante-cella. These are described as comprising red and black painted elements, including horizontal bands, lattice designs and floral designs, on cream-slipped backgrounds. These sherds were not drawn; however, the descriptions suggest a Ptolemaic date (cf. CHAPTER 3.5). Numerous sherds from large jars in wares P1a and Sc1 were also noted.

DATING

A substantial phase of occupation occurred here during the Early and Late Roman periods. There is a small amount of ceramic evidence that points to Ptolemaic Period activity at the site, including possible Ptolemaic types from sub-floor deposits. This might indicate an original construction date for the temple during the Ptolemaic Period, although it is only speculation at this point. Further investigation is needed.

BIBLIOGRAPHY

Churcher and Mills 1999: 261; Mills 1983: 132; Winlock 1936: 17–18.

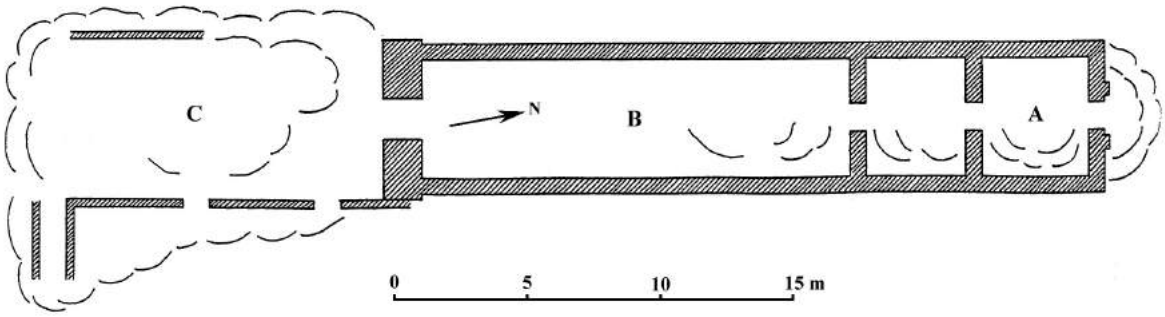


FIGURE A4.45 Site 61: Plan of temple (after Winlock 1936: Pl. X).

62. 31/435-K3-2 (Winlock's 'Site 2, North of Tenideh') (Group L)

LOCATION

This site is located approximately 2.3 km north of 'Ain Birbiyeh (Site 69) and is adjacent to Site 61. It is situated at the south-western end of a large sandy plain (FIGURE 5.15).

DESCRIPTION

This is a settlement site characterised by an extensive sherd scatter, which covers an area 1 x 1.5 km, as well as a large mud-brick domestic building located at the south end. The building comprises several vaulted chambers and displays evidence for multiple building phases. The site is eroded in places and some parts have been covered by modern cultivation. The temple 31/435-K3-1 (Site 61) lies within this site and appears to be contemporary with it.

POTTERY (Numbers 1285–1286)

Approximately twenty diagnostic sherds were collected from the surface of the site, as well as thirteen miscellaneous body-sherds. Roman types can be recognised amongst this material, as can possible Ptolemaic types. The latter include a large red-slipped bowl with a square projecting rim, **1285** (Form 31); and a large cream-slipped bowl with a semi-restricted thickened rim, **1286** (Form 43). Furthermore, the miscellaneous body-sherds are suggestive of a Ptolemaic date, as they each comprise black decorative elements on cream slip (ware Dc1; cf. CHAPTER 3.5).

DATING

The ceramic evidence indicates that the site was occupied during the Roman Period, with possible activity during the Ptolemaic Period. Further investigation is needed to confirm this date.

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Mills 1983: 132; Winlock 1936: 17–18.

63. 31/435-N3-1 (Group M)

LOCATION

This site is located 3 km north-east of 'Ain Birbiyeh (Site 69), 1.3 km north of Site 65 and 1.3 km west of Site 64. It is situated at the eastern end of a large plain, close to the foothills of the escarpment (FIGURE 5.16).

DESCRIPTION

This appears to be a settlement; however, the site is heavily deflated. There are traces of rectangular mud-brick buildings on the surface, as well as a sherd scatter measuring approximately 150 x 100 m. Grinding stones, oven pits and areas of ash were also noted.

POTTERY (Numbers 1287–1292)

A total of ten diagnostic sherds were collected from the surface of the site, all of which represent characteristic Ptolemaic types, They include two large cream-slipped bowls with modelled rims, **1287** and **1288** (Forms 30–31); two sherds from short-necked jars with thickened rims and red-slipped exteriors in fabric B3, **1289** (Form 67); four sherds from similar vessels in fabric A1a, two with red-slipped exteriors, **1290–1291** (Form 67); and two sherds from cream-slipped jars with collared rims and vertical handles attached to the rim, **1292** (Form 71). In addition to these, a single glazed sherd of Islamic date was also noted on the surface.

DATING

The pottery indicates that the site was occupied during the Ptolemaic Period. The single Islamic sherd found on the surface may be intrusive and alone is not enough to indicate activity during this period.

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Mills 1983: 135.

64. 31/435-P3-1 (Group M)

LOCATION

This site is located 1.3 km east of Site 63 and 1.8 km north-east of Site 65. The tombs are cut into the sides of a long series of terraces in the foothills of the escarpment (FIGURE 5.16).

DESCRIPTION

This is an extensive cemetery of approximately 2000–3000 rock-cut tombs. It has been heavily plundered and the surface is littered with fragments of pottery, skeletal remains, pieces of cloth, and stone blocks. Testing was difficult due to the friable nature of the bedrock.

POTTERY (Numbers 1293–1294)

A total of twenty-eight diagnostic sherds were collected from the surface of the site. These largely appear to comprise both Early and Late Roman types, although two sherds can be assigned a Ptolemaic date. These include a short-necked jar with a thickened rim, **1293** (Form 67); and a red-slipped jar with a modelled rim and a handle attached at the shoulder, **1294** (Form 74). Several body-sherds decorated with cross-hatch designs were also reported (unillustrated); these may belong to Ptolemaic vessels, but it is impossible to be certain without examining them first-hand. In addition, a small pear-shaped jar with a narrow neck and rounded base was also discovered at this site. The vessel was reported by Shirley Patten (in Dunsmore 2002: 131) and is comparable to a vessel found in Area D/1 at Ismant al-Kharab (Site 53), which is dated to the Early Roman Period (Dunsmore 2002: Fig. 1b), as well as to a vessel found in Tomb 13 at Site 52 (Number **1233**), which has been assigned a Late Ptolemaic date.

DATING

The surface pottery indicates that the cemetery was in use during the Early and Late Roman periods. There is also limited evidence for activity during the Ptolemaic Period, although this needs to be confirmed through further investigation of the site.

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Dunsmore 2002: 131; Mills 1983: 135.

65. 31/435-M4-1 (El-Qusur; Winlock's 'Site 1, North of Tenideh') (Group M)

LOCATION

This site is located approximately 2 km north-east of 'Ain Birbiyeh (Site 69) and 1.3 km south of Site 63. It is situated in the middle of an open plain, which is surrounded by modern cultivation (FIGURES 5.16 and 5.17).

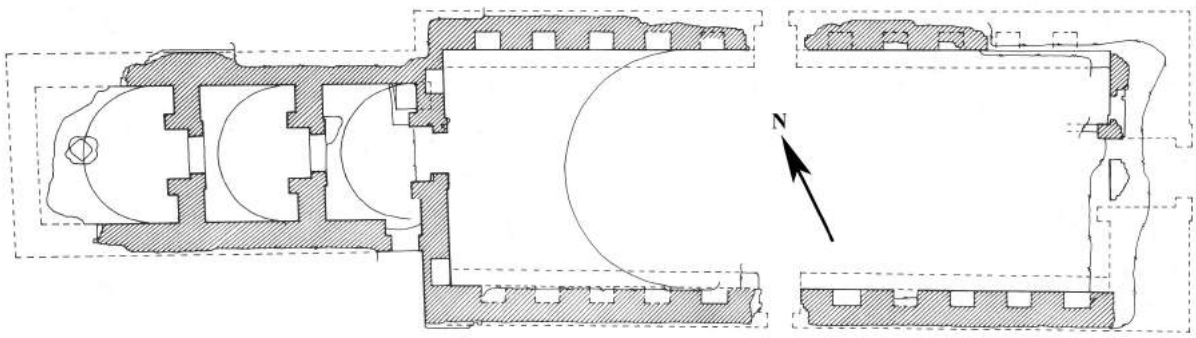


FIGURE A4.46 El-Qusur (Site 65): Plan of the temple (after Mills 1983: 137).

DESCRIPTION

This site comprises three separate buildings, each 50 m apart. One is a mud-brick temple, whilst the other two appear to be columbaria. The larger of the two columbaria is well-preserved with two storeys surmounted by a pigeon loft. The temple is of the axial type, approximately 27 m long, with a pylon gateway on the east, which leads to a long vaulted hall with niches in the walls, followed by three smaller vaulted rooms (FIGURE A4.46). The temple was tested.

POTTERY (Numbers 1295–1299)

A small number of diagnostic sherds were collected from the fill of the temple. Some of these appear to be of Late Roman date, whilst others are Ptolemaic types. The Ptolemaic types include a short-necked jar with a thickened rim, **1295** (Form 67); two large jars with modelled rims, **1296** and **1299** (Form 65); a small bowl with an incurved rim, **1297** (Form 9); and a large cream-slipped bowl with a semi-restricted rim, **1298** (Form 43).

DATING

The ceramic evidence indicates that the site was occupied during both the Ptolemaic and Late Roman periods. The presence of Ptolemaic types amongst the fill of the temple suggests that some activity took place during this period; however, the exact nature of this activity and its relation to the temple is unclear. Further investigation of the site is needed in order to determine the date of the various structures and the phases of use.

BIBLIOGRAPHY

Mills 1983: 136–138; Winlock 1936: 17.

66. 31/435-L4-1 (Group N)

LOCATION

This site is located approximately 1 km north of ʻAin Birbiyeh (Site 69). It is situated on top of a small mound and is surrounded by modern cultivation (FIGURES 5.16 and 5.17).

DESCRIPTION

This site is characterised by a single mud-brick structure surrounded by a sherd scatter, which extends up to 100 m around the mound. At least two storeys are preserved.

POTTERY (Numbers 1300–1301)

Seven diagnostic sherds were collected from the fill of the structure. Two Ptolemaic types can be recognised, including a small simple bowl with a flat base, **1300** (Form 9); and a short-necked cooking pot with a thickened rim, **1301** (Form 67). The remaining sherds appear to be of Early Roman date.

DATING

The ceramic evidence indicates that the structure was probably occupied during the Ptolemaic and Early Roman periods; however, this dating is based on only a small number of diagnostic sherds and needs to be confirmed through further investigation.

BIBLIOGRAPHY

Churcher and Mills 1999: 264; Mills 1983: 139.

67. **31/435-K5-3** (Group N)

LOCATION

This site is located 500 m north-west of ʻAin Birbiyeh (Site 69) and 200 m north-west of Site 68. It is situated on a slight rise of ground, as well as on a smaller adjacent mound, and is surrounded by modern cultivation (FIGURE 5.17).

DESCRIPTION

This site is characterised by three interconnected circular structures of mud-brick, which are largely eroded. The surface around the structures is covered by a dense scatter of sherds. The structures range from 2.4 to 3.4 m in diameter. Traces of mud-brick walls can be seen on the surface of the nearby mound along with a further sherd scatter. The function of the circular structures is unclear, but they could have originally been silos.

POTTERY (Numbers 1302–1304)

A total of nine diagnostic sherds were collected from the surface of the site. Six of these appear to be of Roman date, while three are Ptolemaic types. These include a small footed bowl with a modelled rim, **1302** (Form 25); a deep bowl with a modelled rim, **1303** (Form 32); and a large spouted vessel with a semi-restricted rim and cream-slipped exterior, **1304**. This last vessel is different to the spouted vessels usually encountered in Ptolemaic assemblages in Dakhleh (Forms 81–87), although the shape of the body is reminiscent of other deep bowls of Ptolemaic date (Form 45). In addition, two decorated body-sherds were also recorded but were not illustrated. These are described as sherds from large restricted vessels, which comprise black lines and a black cross-hatched design on a cream slip (cf. CHAPTER 3.5). These could also be Ptolemaic.

DATING

Based on the surface pottery, the site appears to have been occupied during the Ptolemaic and Roman periods.

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Mills 1983: 134.

68. **31/435-K5-2** (Group N)

LOCATION

This site is located on the north-western edge of ʻAin Birbiyeh (Site 69) and 200 m south-east of Site 67. Part of the site is situated beneath a modern building (FIGURE 5.17).

DESCRIPTION

This site comprises several mud-brick walls that are visible beneath a modern barn, as well as a small sherd scatter and a nearby pottery kiln. There is also a sandstone capital of acanthus style built into the wall of the modern barn. As no other stone elements were detected at the site, this capital is thought to have originated from the nearby temple at ʻAin Birbiyeh (Site 69). This site was probably once part of the settlement that must have originally surrounded the ʻAin Birbiyeh temple.

POTTERY (Numbers 1305–1306)

A total of twelve diagnostic sherds were collected from the surface of the site. The majority of these appear to be of Early Roman date, with the addition of two Ptolemaic types. These include a small simple bowl with a flat base, **1305** (Form 9); and a large jar with a collared rim, **1306** (Form 64).

DATING

The site appears to have been occupied during the Early Roman Period, with possible activity also during the Ptolemaic Period. The Ptolemaic date is uncertain as it based on the presence of only two diagnostic sherds.

BIBLIOGRAPHY

Churcher and Mills 1999: 264; Mills 1983: 138.

69. 31/435-K5-1 (‘Ain Birbiyeh) (Group N)

LOCATION

This site is situated in a large plain, which is surrounded by modern cultivation and bordered on the south by the modern road (FIGURE 5.17). The temple is buried within a large mound in the middle of the plain, which contains the remains of a large Roman settlement. A survey of the settlement was carried out in recent years by A. Mills and A. Zielinski; however, it is thus far unexcavated.

DESCRIPTION

This site is characterised by an almost complete sandstone temple, which has been buried to roof level (Kaper 1997: 9–17). It measures 35 x 21 m in length and 4 m in height. It is oriented east-west and stands within a mud-brick temenos with a stone gateway on the east (FIGURE A4.47), as well as a second undecorated gateway further to the east (not on the plan). The temple was dedicated to the god Amun-Nakht and was decorated in the names of Octavian, Galba, Domitian and Hadrian (Kaper 2010). It preserves a monumental carved and inlayed image of Amun-Nakht both on the gateway and on the external rear wall (Kaper 1997: 71–74). Parts of the building have been excavated; however, this is a slow and difficult process due to the poor condition of the stone. The plan of the temple is similar to other Ptolemaic temples, which points to an original construction date within this period (Kaper 1997: 12). There is no clear evidence for Ptolemaic decoration of this temple; the only Ptolemaic evidence is in the form of a painted inscription in Demotic, which was found on a roofing block that had collapsed into the sanctuary. This is a private dedicatory inscription, which has been dated to 15 September 58 BCE by Sven Vleeming (O. Kaper pers. comm. 2015).

POTTERY (Numbers 1307–1332)

A large number of Ptolemaic forms were recovered from the surface and fill in the area of the gateway. These include small simple bowls with flat bases, **1307** and **1312** (Form 9); a simple bowl with a ring-base, **1308** (Form 27); deep bowls with modelled rims, **1310**, **1313–1317** (Forms 29–32); a deep bowl with a semi-restricted modelled rim, **1318** (Form 45); a series of short-necked jars with thickened rims, which are usually used for cooking, **1309**, **1320–1323**, **1326** (Form 67); large jars with modelled rims, **1325**, **1327–1328** (Form 65); a cream-slipped jar with a modelled rim and two vertical handles attached at the neck and shoulder, **1311** (Form 74); and a series of kegs with modelled rims, **1329–1331** (Forms 96 and 98). There is also a sherd from a handled vessel, **1332**, which is probably similar to Form 71. The range of surface treatments (eight cream-slipped and three red-slipped) also points to a Ptolemaic date for these vessels. This material was found along with 4th and 5th century CE pottery, and appears to be part of a mixed deposit that was formed as the temple was buried under wind-blown sand.

DATING

The majority of the pottery from the fill dates to the 4th and 5th centuries CE, providing a date for the abandonment of the temple. It is clear from the inscriptional evidence that the temple was decorated during the Early Roman Period, but it is likely that the building was constructed during the Late Ptolemaic Period. The presence of many Ptolemaic pottery types amongst the fill of the gateway also

points to a Ptolemaic phase of use for the temple, although this may instead be a result of Ptolemaic activity elsewhere at the site. It is likely that a Ptolemaic settlement existed in the area surrounding the temple, and the pottery may in fact derive from this settlement.

BIBLIOGRAPHY

Churcher and Mills 1999: 260; Kaper 1992: 122; 1997: 9–17; Mills 1983: 132–134; 1986: 70–71; 1987: 143, 147; 1990: 15.

70. 31/435-L6-1 (Group N)

LOCATION

This site is located approximately 500 m beyond the southern edge of ʻAin Birbiyeh (Site 69), and is separated from that site by the modern road. It is surrounded and partly covered by modern cultivation (FIGURE 5.17).

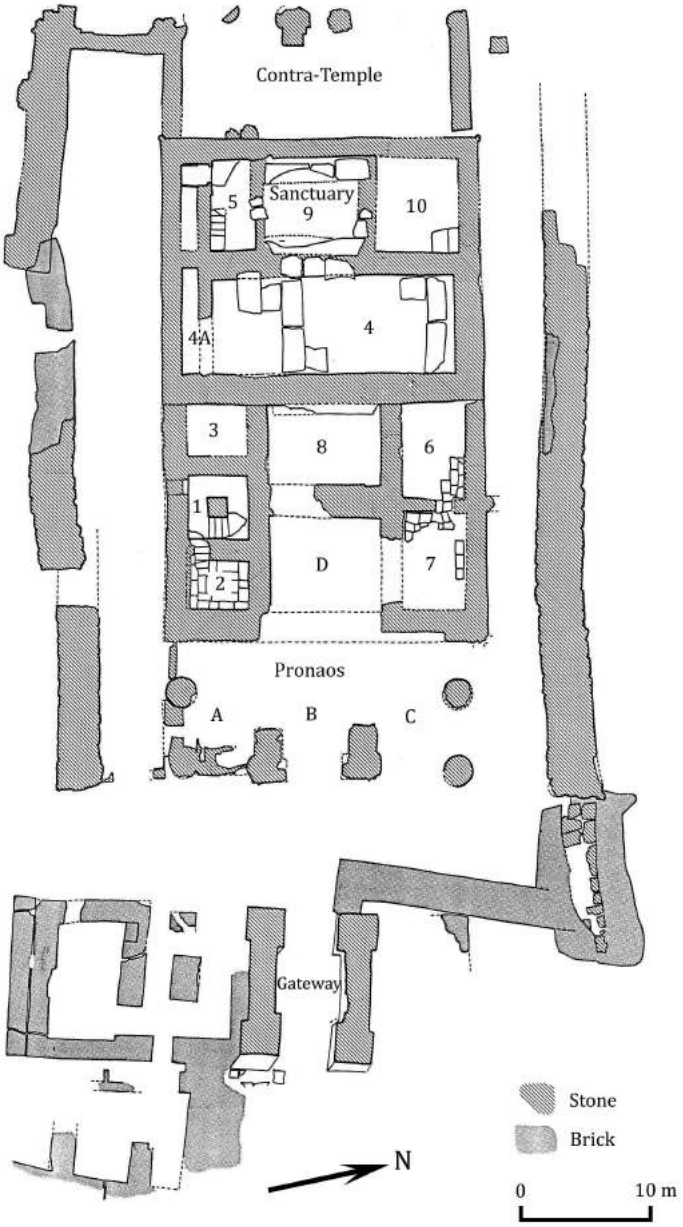


FIGURE A4.47 ʻAin Birbiyeh (Site 69): Plan of the temple (after Mills 1990: 15).

DESCRIPTION

This is a large settlement site comprising a surface sherd scatter across an area measuring 500 x 150 m, as well as traces of mud-brick architecture. Several groups of contiguous rooms can be seen on the surface and some vaulting is visible in places. Based on the proximity of this site to 'Ain Birbiyeh (Site 69), it is possible that it represents part of the settlement that was originally associated with that temple.

POTTERY (Numbers 1333–1340)

Approximately one hundred diagnostic sherds were collected from the surface of the site. Both Early and Late Roman types are recognisable amongst this material, as well as eight sherds that appear to be of Ptolemaic date (**1333–1340**). These include large deep bowls with modelled rims, **1333–1334** (Form 43); short-necked jars with thickened rims, **1336–1337** (Form 67); a keg with a collared rim, **1339** (Form 98); and a decorated body-sherd from a large jar, comprising a black lattice design over a cream-slip, **1340** (cf. CHAPTER 3.5).

DATING

An analysis of the surface pottery indicates that the site was occupied during the Ptolemaic, Early Roman and Late Roman periods.

BIBLIOGRAPHY

Churcher and Mills 1999: 264; Mills 1983: 139.

71. 31/435-N6-2

LOCATION

This site is located approximately 3 km east of 'Ain Birbiyeh (Site 69). It is situated on a sandstone plateau within the foothills of the escarpment. The location is unusual as there are no traces of either a settlement or a water source in the vicinity (FIGURE 5.18).

DESCRIPTION

This site comprises a surface sherd scatter and three mud-brick temples of axial type, with adjacent rooms. Two of the temples (1A and 2) are at right angles to one another with the entrances forming two sides of an enclosure. The smaller (Temple 2) is oriented north-south with an entrance on south, while the larger (Temple 1A) is oriented east-west with an entrance on the east. Temple 1A has been renovated and rebuilt in several phases and appears to have originally been part of an earlier third temple (1B), which stood slightly to the south. Temple 1A and Temple1B were each tested.

POTTERY (Numbers 1341–1347)

Approximately sixty diagnostic sherds were collected. In addition to several Ptolemaic types, both Early and Late Roman types can be recognised, as well as others of indeterminate date. Ptolemaic types were recovered from the test-pits in Temples 1A and 1B (**1341–1347**). These include a small red-slipped bowl with a stump-base and modelled rim, **1341** (Form 25); a series of short-necked jars with thickened rims, **1342–1343** and **1345–1346** (Form 67), the last two of which are cream-slipped; a cream-slipped jar with a thickened rim and a vertical handle attached to the rim and shoulder, **1334** (Form 74?); and a large jar with a modelled rim, **1347** (Form 65). In addition to these vessels, a number of decorated body-sherds from large cream-slipped jars were also recorded but not drawn. The decorative elements are described as a black cross-hatched design between black bands, a black floral motif, and other black and red designs, and quite possibly belong to vessels of Ptolemaic date (cf. CHAPTER 3.5).

DATING

The pottery indicates that the site was occupied during the Ptolemaic, Early Roman and the Late Roman periods. It is unclear when the temples were constructed, although it is possible that Temples 1A and/or 1B were in use during the Ptolemaic Period, based on the ceramic evidence. The fact that multiple building phases have been identified raises the possibility that the earliest phase (Temple 1B) is of Ptolemaic date, although at this stage this is only speculation.

BIBLIOGRAPHY

Churcher and Mills 1999: 262; Mills 1983: 138.

72. 30/435-K1-5

LOCATION

This site is located approximately 4.8 km south of ‘Ain Birbiyeh (Site 69). It is situated on a hill, which is surrounded by modern cultivation (FIGURE 5.18).

DESCRIPTION

This site is a mud-brick temple measuring 10 x 15 m, which is entered from the south. The walls are preserved up to 4 m high in places and access to an upper storey is preserved. The building was tested and a series of eight mud-packed floors were identified. These floors were closely associated and very little occupational debris was recovered. It appears that the building was cleaned out and refinished several times. Traces of walls indicate that the site extends beyond the temple; however, the remainder of the site is poorly preserved.

POTTERY (Numbers 1348–1349)

Twenty-four diagnostic sherds were collected from the surface of the site, whilst another twenty-six were recovered from the fill of the temple. This material appears to date to the Early Roman, Late Roman and Islamic periods, with the addition of a single sherd that is potentially of Ptolemaic date. This is a body-sherd from a closed vessel, which comprises a vertical handle attached to part of the neck and shoulder, **1348**. This could be from a vessel similar to Form 74; however, without more of the vessel preserved it is impossible to be sure of the date. An additional three sherds of Roman date were found in the fill directly overlying the sanctuary floor.

A single vessel was found embedded in the mud-brick foundation. It was not drawn; however, it is described as a deep, spouted vessel that is cream-slipped (Sc1) and badly burnt, and may be similar to **1018** (Form 83). The cream slip in particular supports a Ptolemaic date for this vessel. Four diagnostic sherds were recovered from below the sanctuary floor, along with several body-sherds from large jars in wares P1a and Sc1. The diagnostic sherds were recorded but not illustrated with one exception. They include a base from a small bowl in ware P1a; a handle and body-sherd from the upper part of a large jar in ware P1a; a simple cooking pot in ware Sc3 and with a rim diameter of 13 cm; and a large deep bowl with a modelled rim, **1349** (Form 31). The latter vessel would appear to be Ptolemaic; however, it is difficult to date the other vessels without seeing them first-hand.

DATING

The ceramic evidence indicates that the site was occupied during the Early Roman, Late Roman and Islamic periods. The presence of potential Ptolemaic pottery types below the floor of the sanctuary and embedded in the foundation suggests that the temple might have been originally constructed during this period. The subsequent renovations could have occurred during the Early and Late Roman periods. Clearly, additional investigation is needed at this site.

BIBLIOGRAPHY

Churcher and Mills 1999: 260; Mills 1983: 130.

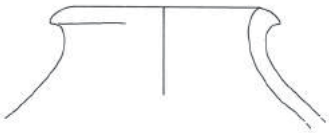
APPENDIX 5

POTTERY ASSEMBLAGES FROM DAKHLEH OASIS SITES

Site	*Pot Number(s)*	*Site*	*Pot Number(s)*	*Site*	*Pot Number(s)*
01 …….	785–786	25 …….	1010–1060	49 …….	1216–1220
02 …….	787–789	26 …….	1061–1062	50 …….	1221–1224
03 …….	790–794	27 …….	1063–1064	51 …….	1225–1231
04 …….	795–840	28 …….	1065–1068	52 …….	1232–1235
05 …….	841–842	29 …….	1–784 (APPENDIX 2)	53 …….	1236–1242
06 …….	843–846	30 …….	1069–1075	54 …….	1243–1248
07 …….	847–853	31 …….	1076–1078	55 …….	1249–1264
08 …….	854–867	32 …….	1079–1083	56 …….	1265–1271
09 …….	868–869	33 …….	1084–1093	57 …….	1272–1273
10 …….	870–881	34 …….	1094–1097	58 …….	1274
11 …….	882–884	35 …….	1098–1105	59 …….	1275–1276
12 …….	885–891	36 …….	1106–1114	60 …….	1277–1280
13 …….	892–897	37 …….	1115–1121	61 …….	1281–1284
14 …….	892–897	38 …….	1122–1124	62 …….	1285–1286
15 …….	898–932	39 …….	1125–1132	63 …….	1287–1292
16 …….	933–934	40 …….	1133–1142	64 …….	1293–1294
17 …….	935–937	41 …….	1143–1148	65 …….	1295–1299
18 …….	938–943	42 …….	1149–1161	66 …….	1300–1301
19 …….	944–947	43 …….	1162–1180	67 …….	1302–1304
20 …….	948–950	44 …….	1181–1184	68 …….	1305–1306
21 …….	951	45 …….	1185–1200	69 …….	1307–1332
22 …….	952–1002	46 …….	1201–1208	70 …….	1333–1340
23 …….	1003–1004	47 …….	1209–1211	71 …….	1341–1347
24 …….	1005–1009	48 …….	1212–1215	72 …….	1348–1349

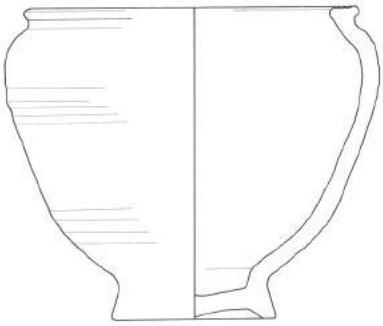
NUMBERS 785–786 SITE 01. 33/390-E9-1

785.
Rd. 12.0 Pht. 4.0
Fabric unknown.

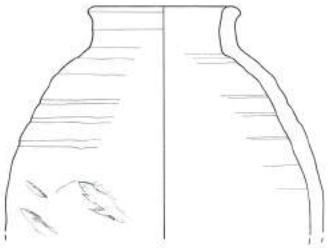


786.
Rd. 12.0 Pht. 6.0
Fabric unknown.

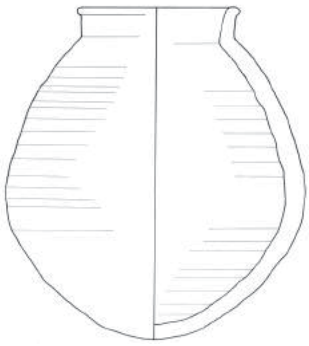
NUMBERS 787–789 SITE 02. 33/390-E9-2 TOMB 7



787.
Rd. 17.2 Bd. 8.3–8.5 Ht. 16.7
A2a Sc3 (ext.)
Blackened ext. LB.



788.
Rd. 8.0 Pht. 12.0
B3 P9
Burnt ext.

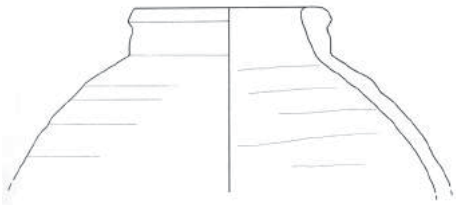


789.
Rd. 9.0 Ht. 17.8
MaxD. 16.0
B3 P9
Blackened.

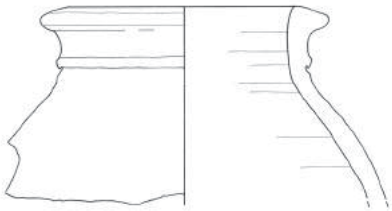
NUMBERS 790–794 SITE 03. WINLOCK'S SITE 3A, SURFACE

790. //
Rd. 30.0
A1a Sc1 (int./ext.)
Rim preserved.
Two examples.

791. //
Rd. 15.0
B3 Sr8 (ext./rim)



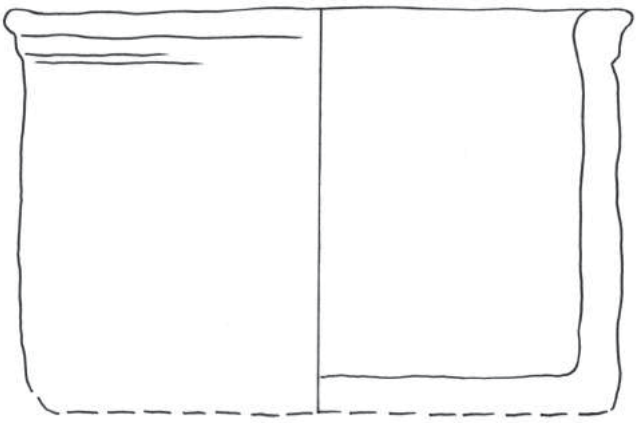
792.
Rd. 10.0 Pht. 10.0
A1a P1a



793. //
Rd. 16.0
A1a P1a

794.
Rd. 13.0 Pht. 8.0
A1a Sc1 (ext./rim)

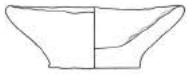
NUMBER 795 SITE 04. 32/390-E1-1 TEST 1



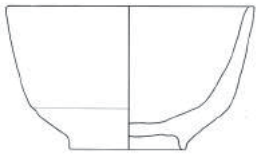
795.
Rd. c. 65.0 Ht. 40.0
A4 Sc5

(Scale 1:8)

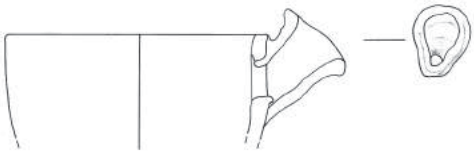
NUMBERS 796–803 SITE 04. 32/390-E1-1 TEST 1, FILL (PAGE 1 OF 4)



796.
Rd. 9.2 Bd. 4.6
Ht. 3.2
A1a P1a
Coated with burnt deposit (oil?) int. and part ext.



797.
Rd. 14.0 Bd. 6.0–6.2
Ht. 7.3
A1a P1a



798.
Rd. 14.0–18.0 Pht. 6.0
Sp. 4.0 x 3.0
A1a Sr1 (ext./rim)

799.
Rd. 6.4–7.0
Ht. 2.1
A1a P1a

800.
Rd. 18.0 Pht. 6.0
A1a P1a

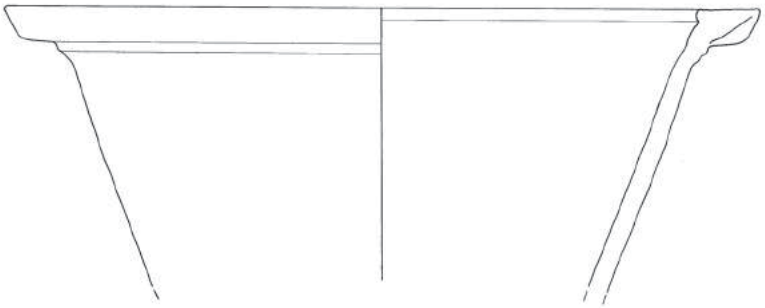
801.
Rd. 22.0 Pht. 4.0
A1a P1a

802.
Rd. 34.0 Pht. 8.0
A1a Sc1 (int./ext.)
Applied lump below rim.

803.
Rd. 26.0 Pht. 8.0
A4 P4

NUMBERS 804–808 SITE 04. 32/390-E1-1 TEST 1, FILL (PAGE 2 OF 4)

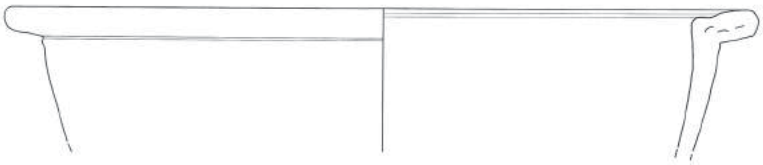
804.
Rd. 36.0 Pht. 14.0
A1a P1a
Burnt int.



805.
Rd. 40.0 Pht. 16.0
A1a Sc1 (int./ext.)
Burnt ext.

806.
Rd. 41.0 Pht. 4.0
A1a P1a

807.
Rd. 40.0 Pht. 6.0
A2a P2a
Burnt rim.



808.
Rd. 40.0 Pht. 8.0
A1a P1a
Burnt int. and ext.

NUMBERS 809–817 SITE 04. 32/390-E1-1 TEST 1, FILL (PAGE 3 OF 4)

809.
Rd. 17.0 Pht. 4.0
A1a Sc1 (ext.)

810.
Rd. 26.0 Pht. 8.0
A1a P1a
Burnt rim.

811.
Rd. 16.0 Pht. 5.0
A1a P1a

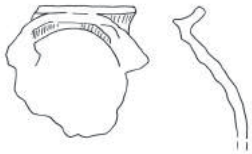
812.
Rd. 32.0 Pht. 22.0
A1a Sc1 (ext.)

813.
Rd. c18.0 Pht. 8.0
B10 P21

814.
Rd. 21.0 Pht. 5.0
A6 P13

815.
Rd. 26.0 Pht. 4.0
A1a Sc1 (ext.)

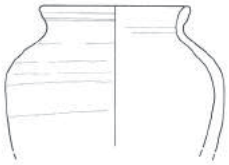
816.
Rd. 16.0 Pht. 6.0
B3 P9
Horizontal loop handle.



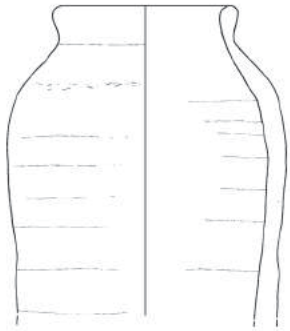
817.
Rd. 18.0 Pht. 8.0
B3 P9
Horizontal loop handle.

NUMBERS 818–831 SITE 04. 32/390-E1-1 TEST 1, FILL (PAGE 4 OF 4)

818.
MaxD. 10.8
B3 P9
Burnt ext.
Remains of
horizontal handle?



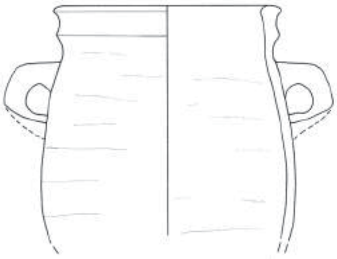
819.
Rd. 8.0 Pht. 8.0
Fabric unknown.



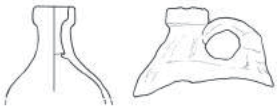
820.
Rd. 10.0 Pht. 18.0
A6 P13?

821.
Rd. 3.4
Pht. 2.5
B3 P9

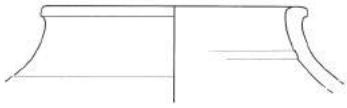
822.
Rd. 2.1
Pht. 3.2
B3 P9



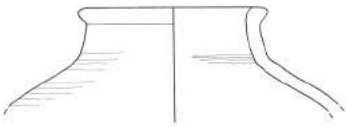
823.
Rd. 12.0 Pht. 14.0
B12 P23



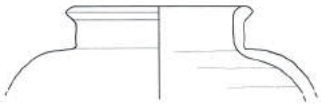
824.
Rd. 2.1–2.3 Pht. 6.0
B3 Sr8 (ext.)
Askos.



825.
Rd. 14.0–16.0 Pht. 5.0
A1b P1b

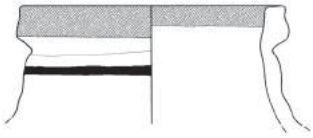


826.
Rd. 10.0 Pht. 6.0
A2a P2a



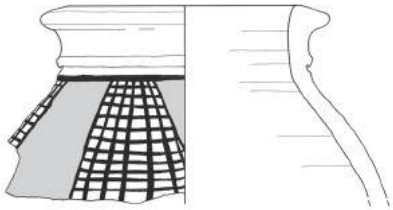
827.
Rd. 9.0 Pht. 6.0
B3 P9

828.
Rd. 11.0 Pht. 4.0
A1a P1a



829.
Rd. c14.0 Pht. 7.0
A1a Dc1 (ext.)
Red rim, black band.

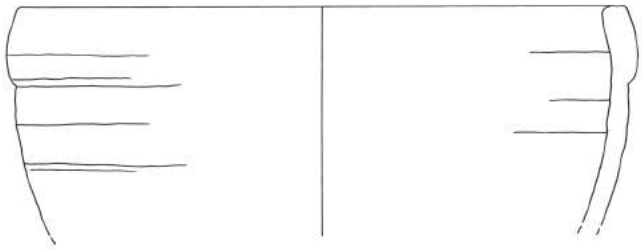
830.
Rd. c13.0 Pht. 5.0
A1a P1a



831.
Rd. 15.0 Pht. 10.0
A1a Dc1 (ext./rim)
Black lattice and red panels.

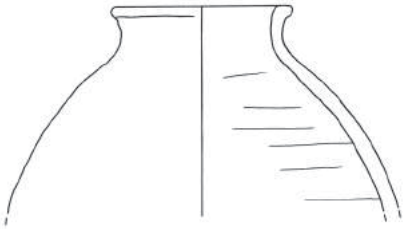
NUMBERS 832–840 SITE 04. 32/390-E1-1/ TEST 2, FILL

832.
Rd. 22.0 Pht. 6.0
B2 P7
Burnt ext.

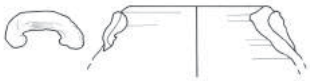


833.
Rd. c32.0 Pht. 12.0
A1a Sc1 (int./ext.)

834.
Rd. 13.0 Pht. 4.0
A2a P2a

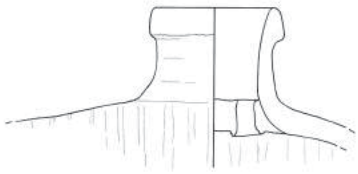


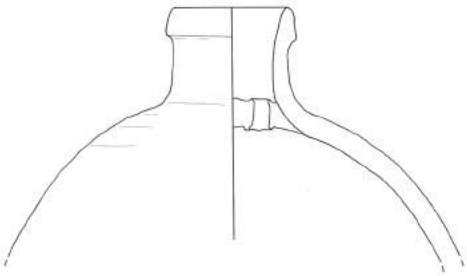
835.
Rd. 9.0 Pht. 12.0
B3 Sr8 (ext./rim)

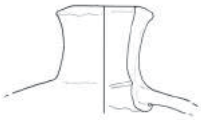


836.
Rd. 8.0 Pht. 4.0
A1a P1a
Burnt ext.
Horizontal loop handle.

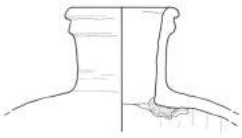
837.
Bd. 2.8
Pht. 4.0
B3 P9







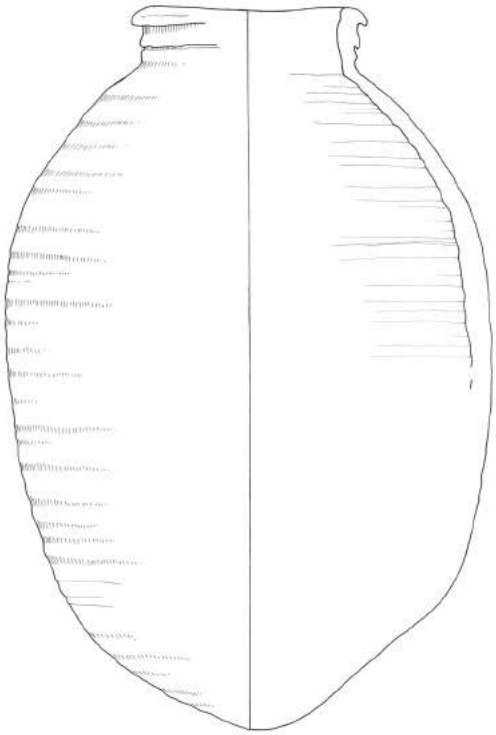
838.
Rd. 5.2 Nht. 4.0
A2a P2a



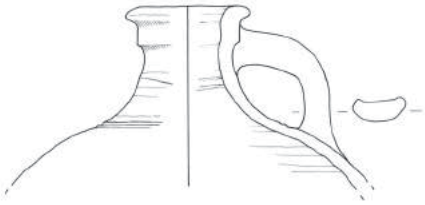
839.
Rd. 6.0 Nht. 4.0
A1a P1a

840.
Rd. 6.6–6.9 Nht. 5.0
A1a P1a
Strainer in neck.

NUMBERS 841–842 SITE 05. 32/390-D2-2 (BIR TALATA EL-MAHOUB) UNKNOWN TOMB



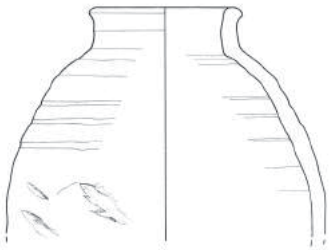
841.
Rd. 12.0 Ht. 38.0 MaxD. 24.0
A31 Sc18
PLATE E.1



842.
Rd. 6.0 Pht. 10.0
Fabric unknown.

NUMBERS 843–845 SITE 06. 33/390-F10-1 SURFACE

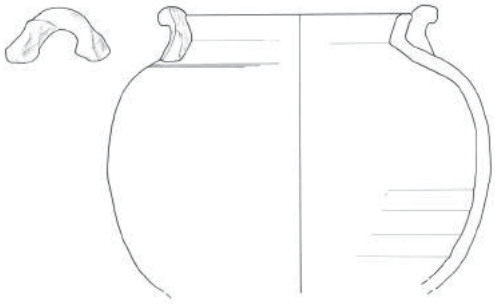
843.
Rd. 12.0 Pht. 5.0
Fabric unknown.



844. //
Rd. 8.0
B3 Sr8 (ext.)

845.
Rd. 12.0 Pht. 6.0
Fabric unknown.

NUMBER 846 SITE 06. 33/390-F10-1 TEST 2, FLOOR



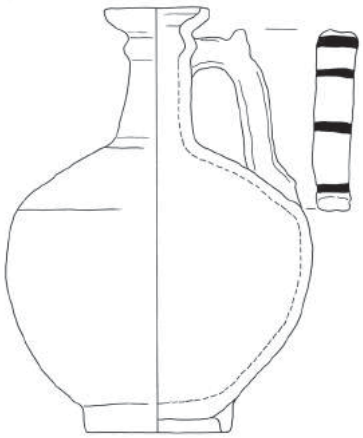
846.
Rd. 12.0 MaxD. 20.0 Pht. 15.0
A1a P1a
Horizontal handle, incised lines ext. UB.
Blackened ext.

NUMBERS 847–852 SITE 07. 33/390-F9-1 (DEIR EL-HAGGAR) SURFACE AROUND KILN 1

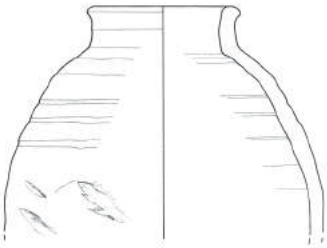
847.
Rd. 24.0 Pht. 3.0
A1b Sc2 (int./ext.)

848. //
Rd. 40.0
A1a Sc1 (int./ext.)

849. //
Rd. 12.0
B3 P9
Horizontal handle, burnt ext.



852.
Rd. c.6.0 Bd. 7.7 Ht. 22.2
A1a Dp1
Black bands on handle.
Black lines on ext. rim and possible black dec. on shoulder.
Burnt ext.
PLATE E.2



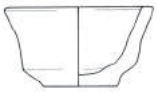
850. //
Rd. 10.0
A1b P1b

851. //
Rd. 10.0–12.0
A2a P2a

NUMBER 853 SITE 07. 33/390-F9-1 (DEIR EL-HAGGAR) BOTTOM OF KILN 1

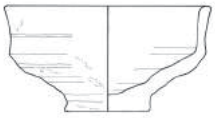
853. //
Rd. 46.0
A2a Sc3 (int./ext.)

NUMBERS 854–862 SITE 08. 33/390-F8-1A SURFACE (PAGE 1 OF 2)



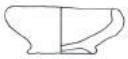
854.
Rd. 7.8 Bd. 4.0
Ht. 4.4
A1a Sr1
(ext./int.)
Blackened.

855.
Rd. 11.0 Bd. 3.7–3.9
Ht. 5.0
A1a P1a
Blackened int. and part ext.

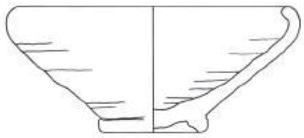


856.
Rd. 10.9 Bd. 4.1–4.2
Ht. 5.5
A1a P1a

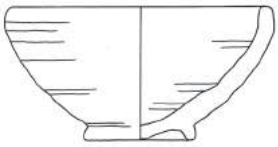
857.
Rd. 8.0 Bd. 4.5
Ht. 3.8
A1a P1a
Blackened int./ext.



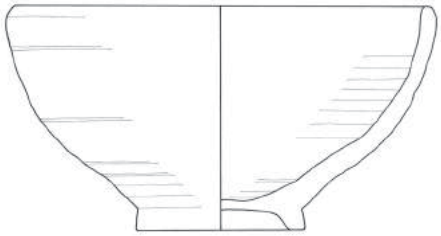
858.
Rd. 6.0 Bd. 3.5 Ht. 2.3
A2a P2a/Sr1? (int./ext.)
Rim blackened.



859.
Rd. 14.5 Bd. 6.3 Ht. 6.6
A2a Sc3 (int./ext.)
Blackened.



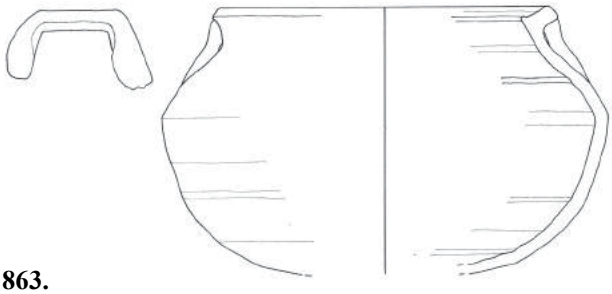
860.
Rd. 13.7 Bd. 5.8 Ht. 6.9
A1a Sc1 (ext.)
Blackened.



861.
Rd. 22.0 Bd. 8.5–9.0 Ht. 11.8
A1a P1a/Sc1 (under base)
Traces of cream slip ext.?

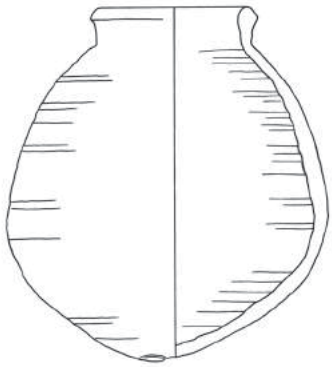
862. //
Rd. 40.0
A1a Sc1

NUMBERS 863–867 SITE 08. 33/390-F8-1A SURFACE (PAGE 2 OF 2)

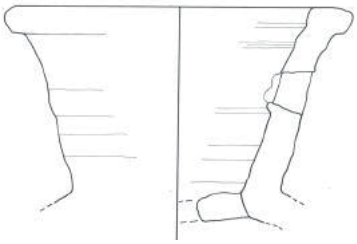


863.
Rd. 18.0 Pht. 14.0
B3 P9?
Horizontal loop handles.

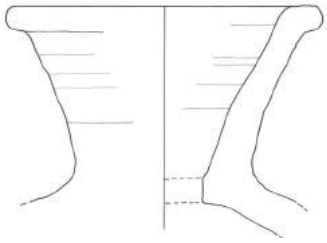
864.
Rd. 14.3 Bd. 9.5 Ht. 18.5
MaxD. 18.0
A1b Sc2 (ext./rim)
Base from a small red-slip bowl found inside.



865.
Rd. 8.0 Ht. 18.7
B3 P9
Blackened int.

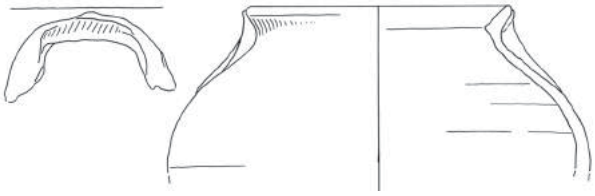


866.
Rd. 18.4 Pht. 12.0
A4 Sc5
Hole in vessel wall.
Stand or kiln dog?



867.
Rd. 16.8 Pht. 12.0
A4 Sc5
Stand or kiln dog?

NUMBERS 868–869 SITE 09. 33/390-F10-4 SURFACE

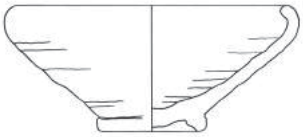


868.
Rd. 14.0 Pht. 10.0
B3 Sr8 (ext./rim)
Horizontal loop handle.

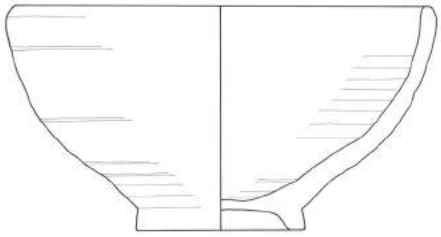
869.
Rd. 13.0 Pht. 10.0
A1a Sc1 (ext./rim)

NUMBERS 870–876 SITE 10. 33/390-F10-3 COW BURIAL (PAGE 1 OF 2)

870. //
Rd. 11.0
A1a P1a
Burnt on rim and ext.



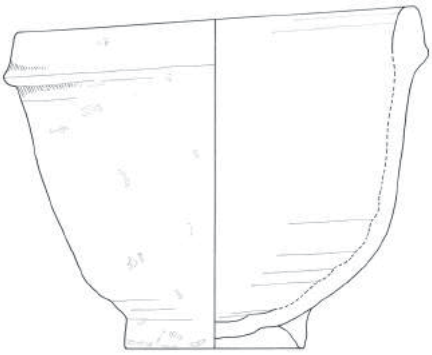
871. //
Rd. 16.0
A1a Sc1 (int./ext.)
Rim preserved.



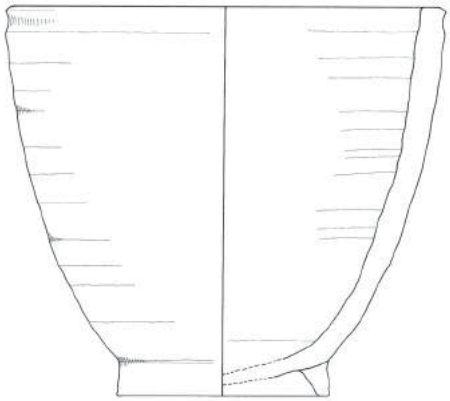
872. //
Rd. 21.0
B3a P8

873. //
Rd. 52.0
A1a Sc1 (int./ext.)

874. //
Rd. 38.0
A1a Sc1 (int./ext.)



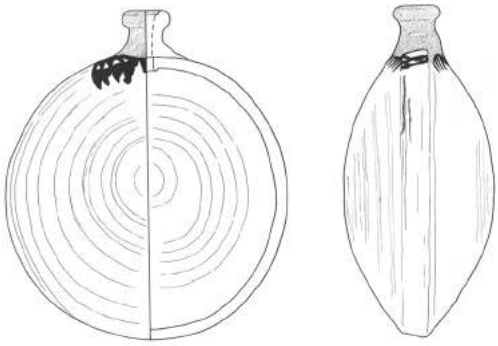
875. //
Rd. 21.0
A1a Dc1 (ext)
Red rim band.
Rim-UB preserved.



876. //
Rd. 30.0
A1a Sc1 (int./ext.)
Rim preserved.

NUMBERS 877–878 SITE 10. 33/390-F10-3 COW BURIAL (PAGE 2 OF 2)

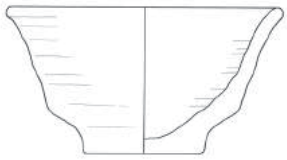
877.
Rd. 10.0 Pht. 7.0
A1b Sc2 (ext.)
Burnt ext.



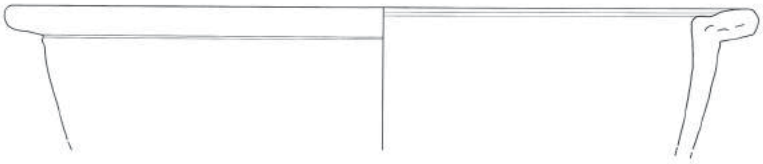
878.
Rd. 2.7 Ht. 17.2 MaxD. 15.0
A2a Dr2 (ext./rim)
Solid dark brown/red rim and neck and black dec. on shoulder.

NUMBERS 879–881 SITE 10. 33/390-F10-3 SURFACE

879.
Rd. 18.5 Bd. 8.0 Ht. 3.5
A1a P1a



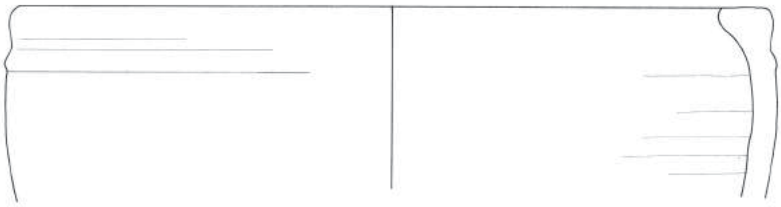
880.
Rd. 15.8 Bd. 6.4 Ht. 7.6
Fabric unknown.



881. //
Rd. 42.0
A1a Sc1 (int./ext.)

NUMBERS 882–884 SITE 11. 33/390-H6-2 SURFACE

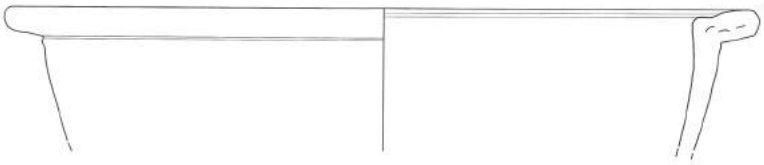
882. //
Rd. 26.0
A1a Sr1 (int./ext.)



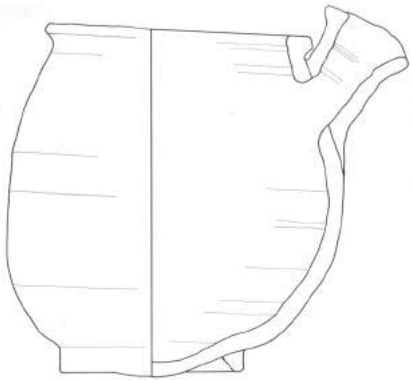
883. //
Rd. 31.0
A1b P1b

884. //
Rd. c. 12.0
B3 P9

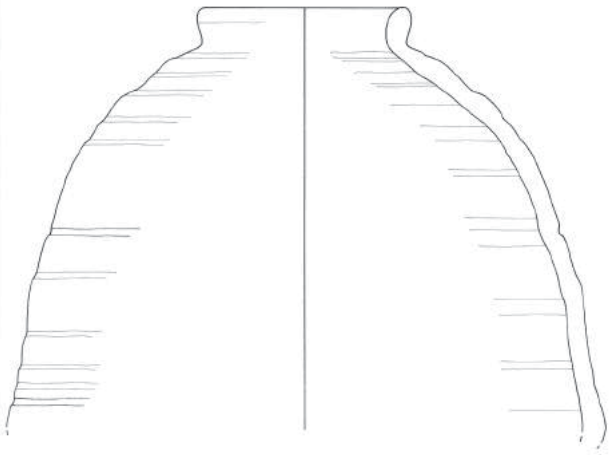
NUMBERS 885–891 SITE 12. 33/390-H7-1 (QARET EL-MUZZAWAQA) SURFACE



885. //
Rd. 36.0
A1a P1a

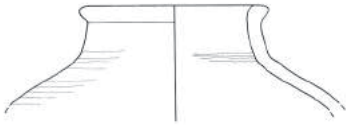


886. //
Rd. c. 14.0
A1a P1a
Rim-spout preserved.

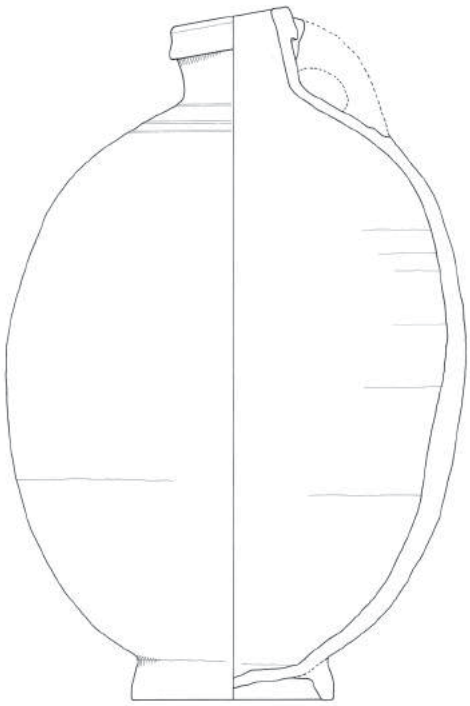


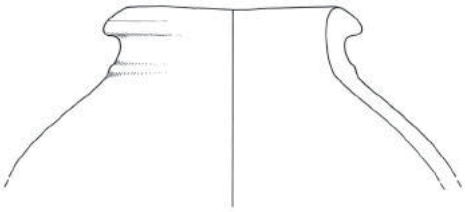
887. //
Rd. 10.0
A1a P1a

888. //
Rd. 12.0
B3 P9
Rim-handle preserved.



889. //
Rd. 11.0
A1a P1a



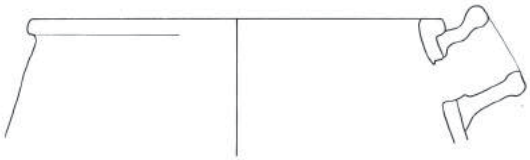


890.
Rd. 13.0 Pht. 10.0
A1a P1a

891. //
Rd. 6.3
A1a P1a
Rim-shoulder-handle preserved.
3 examples.

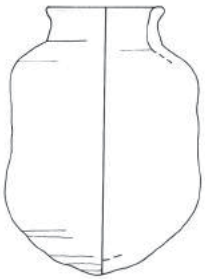
NUMBERS 892–897 SITE 13 AND 14. 33/390-L9-1 (AMHEIDA) AND 33/390-K9-4 SURFACE

892. //
Rd. 28.0
A1b Sc2 (ext.)



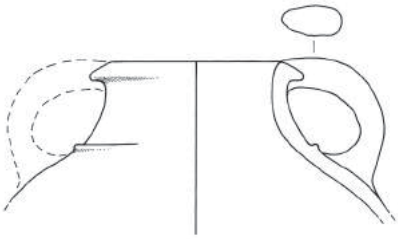
893. //
Rd. 28.0
A1b P1b

894. //
Rd. 42.0
A1b P1b



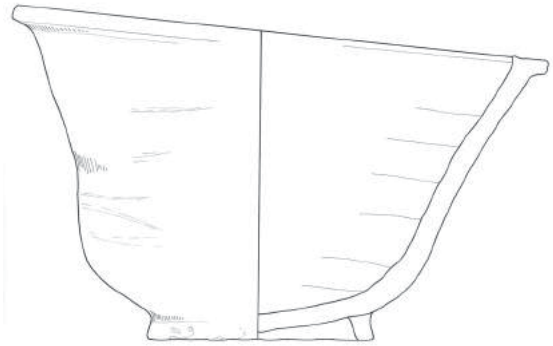
895. //
Rd. 6.0
B10 P21
Rim preserved.

896. //
Rd. 11.0
A1b P1b

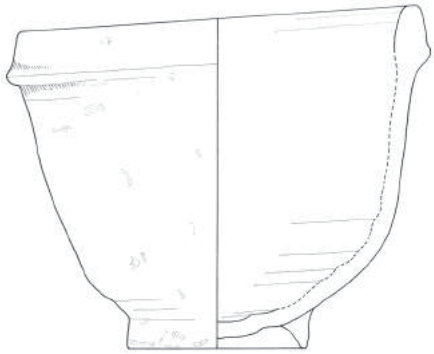


897.
Rd. 10.0 Pht. 8.0
A1b P1b
1 handle preserved.

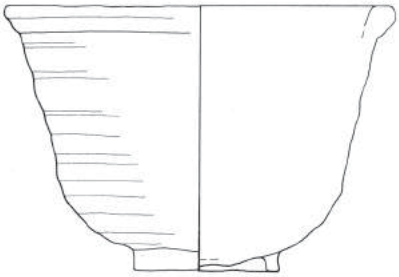
NUMBERS 898–904 SITE 15. 32/390-K1-1 GENERAL FILL ABOVE TOMB 2 (PAGE 1 OF 2)



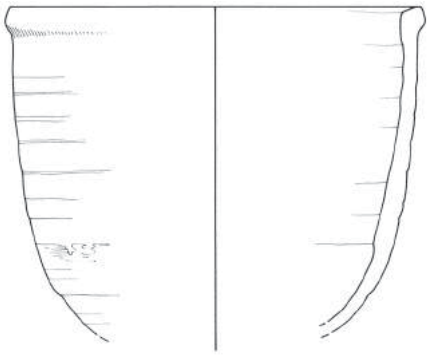
898. //
Rd. 29.0
A1a Sc1 (int./ext.)
Rim preserved.



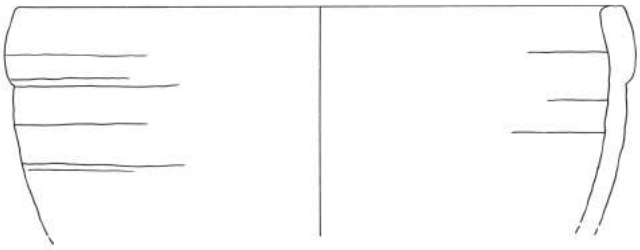
899. //
Rd. 23.0
A1a Sc1 (int./ext.)
Rim preserved.



900. //
Rd. 23.0
A1a Sc1 (int./ext.)
Rim preserved.

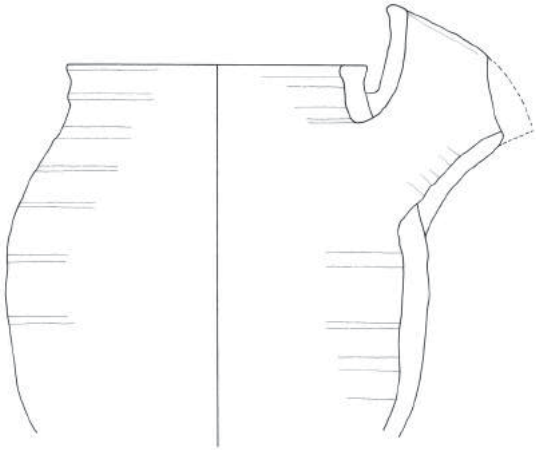


901. //
Rd. 25.0
A1a P1a
Rim preserved.



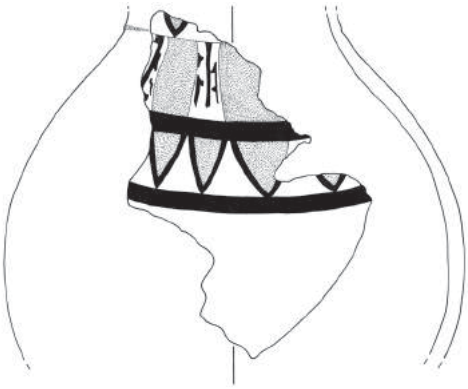
902. //
Rd. 30.0
A1a Sc1 (int./ext.)

903.
Rd. 21.0 Pht. 10.0
A28 P37

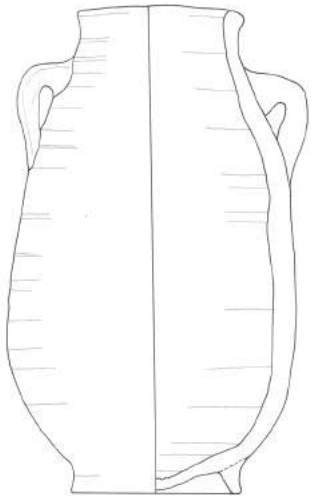


904. (Reg. 2/27)
Rd. 16.0 MaxD. 22.0 Pht. 20.0
A1a P1a

NUMBERS 905–906 SITE 15. 32/390-K1-1 GENERAL FILL ABOVE TOMB 2 (PAGE 2 OF 2)

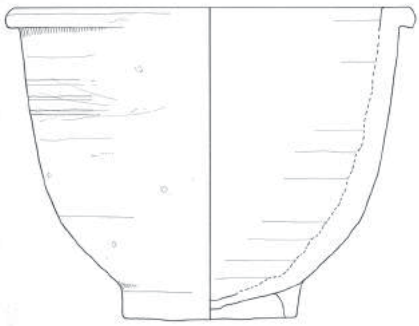


905.
B/S MaxD. c.24.0 Pht. 18.0
A1a Dc1 (ext.)
Red and black dec.

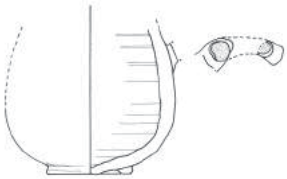


906. (Reg. 2/29)
Rd. 8.6–8.8 Bd. 8.9 Ht. 25.0
A1a P1a
Wad of linen stuck to rim.

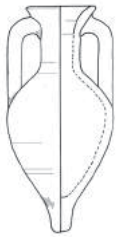
NUMBERS 907–909 SITE 15. 32/390-K1-1 FILL OUTSIDE TOMB 2



907.
Rd. 21.1 Bd. 9.2 Ht. 16.3–16.8
A1a P1a/?Sc1 (ext.)
Patchy cream slip ext.
PLATE E.3

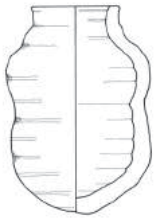


908. (Reg. 2/26)
Bd. 4.4 MaxD. 9.0 Pht.8.0
A1a P1a
Stub of horizontal handle.



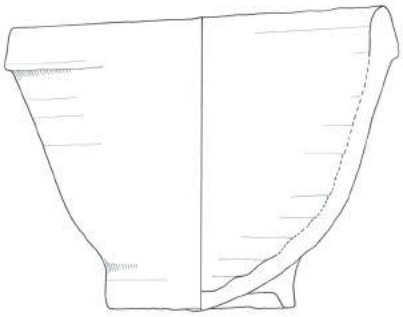
909. (Reg. 2/20)
Rd. 3.6 Ht. 11.9
MaxD. 5.6
A1a/A2a
P1a/P2a
PLATES E.3 & E.4

NUMBER 910 SITE 15. 32/390-K1-1 GRAVE 2, ROOM 1

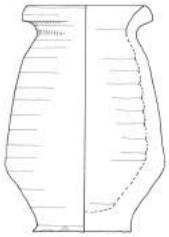


910. (Reg. 2/08)
Rd. 4.6 Ht. 10.7
A1a P1a/Sc1? (ext.)
Patchy cream slip.
PLATE E.3

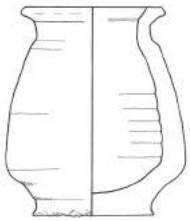
NUMBERS 911–918 SITE 15. 32/390-K1-1 TOMB 2, ROOM 2



911.
Rd. 19.7–20.2 Bd. 9.9 Ht. 15.8
A1a P1a
Very blackened ext. and int.
Thick black resin coating under base.
PLATE E.3



912. (Reg. 2/05)
Rd. 6.7 Bd. 5.2
Ht. 11.0
A1a Sc1 (ext.)
PLATES E.3 & E.6

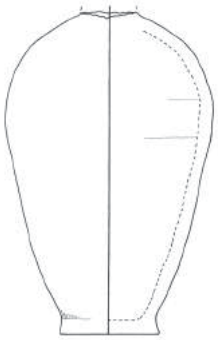


913. (Reg. 2/02)
Rd. 7.5 Bd. 6.2
Ht. 10.9
A1a P1a
Drips of resin? on ext.
Plate E.3

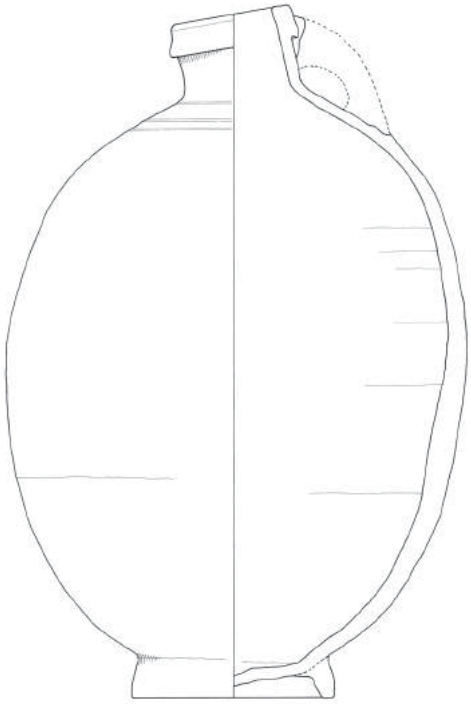
914. (Reg. 2/04)
Rd. 9.8–10.1 Bd. 6.0
Ht. 11.3–11.8
A1a P1a?
Resinous coating int./ext.
Woven textile stuck to rim.
PLATES E.3 & E.7

915. (Reg. 2/06)
Rd. 11.0 Bd. 5.7 Ht. 12.7
A1a P1a
Resinous coating int./ext.
PLATE E.3

916. (Reg. 2/09)
Rd. 8.5 Bd. 6.5
Ht. 15.5–16.5
A2a Sc3 (ext.)
PLATES E.3 & E.7



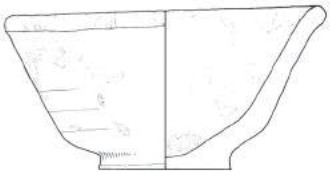
917. (Reg. 2/03)
Bd. 4.5 Pht. 17.0
A1a P1a?
Blackened.
Plant fibres and resin stuck to ext.
(from mat in coffin).
PLATES E.3 & E.5



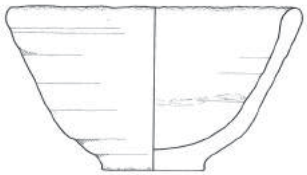
918. (Reg. 2/07)
Rd. 6.2 Bd. 10.5? Ht. 36.5 MaxD. 24.4
A1a Sc1 (ext.)
Two parallel incised lines on shoulder.
PLATES E.3 & E.8

NUMBERS 919–925 SITE 15. 32/390-K1-1/ TOMB 2, ROOM 3 (PAGE 1 OF 2)

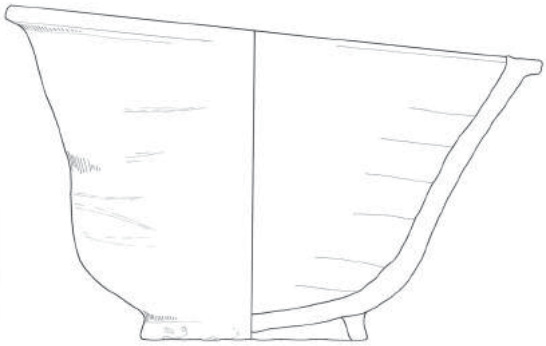
919. (Reg. 2/28)
Rd. 11.0–11.4 Bd. 4.4
Ht. 4.1–4.4
A1a P1a
PLATE E.3



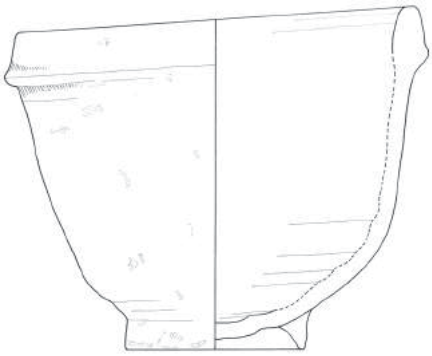
920. (Reg. 2/19)
Rd. 16.6 Bd. 6.9 Ht. 8.0–8.5
A1a P1a
Black resin ext. and int., linen fibres stuck to ext.
PLATE E.3



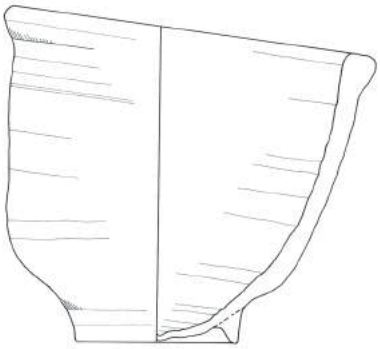
921. (Reg. 2/22)
Rd. 15.5? Bd. c.5.5
Ht. c.8.6
A1a P1a
Possible ring base, encrusted with black resin int./ext. and linen/ fibre ext.
PLATE E.3



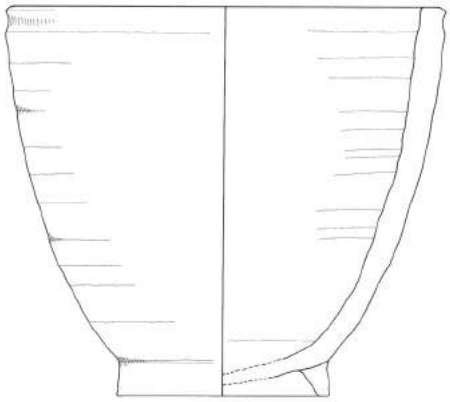
922.
Rd. 27.0–28.2 Bd. 12.0 Ht. 14.6–17.6
A2a P2a
Resin int., linen and fibre stuck to rim and ext.
PLATE E.3



923.
Rd. 22.4 Bd. 9.4 Ht. 16.6
A1a P1a
PLATE E.3

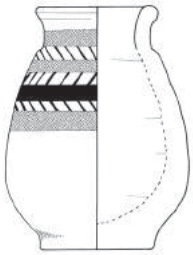


924. (Reg. 2/15b)
Rd. 19.3 Bd. 8.6 Ht. 15.3–18.3
A1a Sc1 (int./ext.)
PLATE E.3

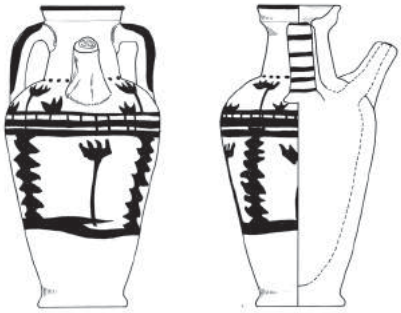


925. (Reg. 2/15a)
Rd. 22.9 Bd. c11.5 Ht. 20.5
A2a Sc3 (ext./rim)
Black resin on int. base.
PLATE E.3

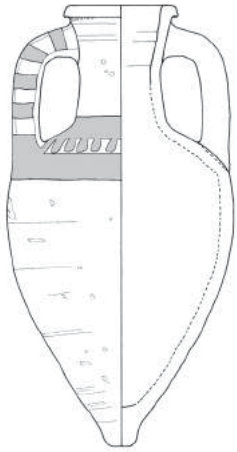
NUMBERS 926–932 SITE 15. 32/390-K1-1 TOMB 2, ROOM 3 (PAGE 2 OF 2)



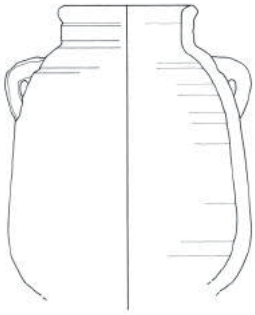
926. (Reg. 2/16)
Rd. 6.4 Bd. 6.0
Ht. 12.7
A1a Dc1 (ext.?)
Black and red dec.
Resin int. rim and part ext.
PLATES E.3 & E.6



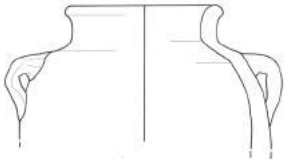
927. (Reg. 2/11)
Rd. 4.4 Bd. 4.7 Ht. 15.9
A2a Dp2
Black dec.
Spout plugged with cloth roll.
PLATES E.3 & E.9



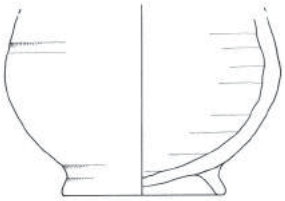
928. (Reg. 2/12)
Rd. 5.8 Bd. 1.8 Ht. 23.0
A1b Dc2 (ext./rim)
Red dec. on handle and shoulder.
PLATES E.3 & E.10



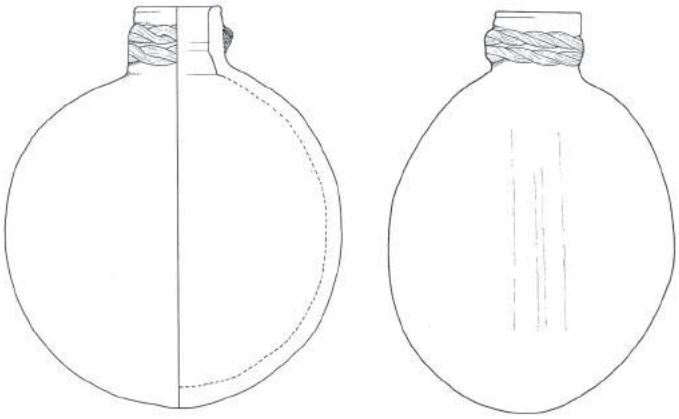
929. (Reg. 2/24)
Rd. 7.2 MaxD. 13.0
Pht. 16.0
Fabric unknown.



930.
Rd. 8.0 Pht. 8.0
A1a P1a?
Black substance on ext and int (oil?).

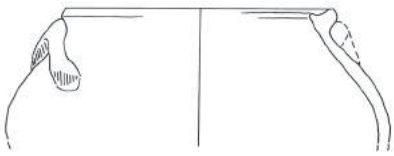


931. (Reg. 2/15c)
Bd. 8.8 Pht. 10.0 MaxD. 14.0
Fabric unknown.

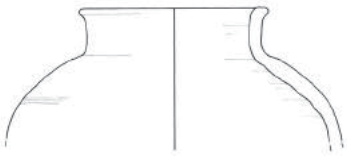


932. (Reg. 2/14)
Rd. 4.5 Ht. 21.1 MaxD. 18.0
A1a Sr1 (ext./rim)
Encrusted with sand and resin and linen stuck to ext.
String tied and knotted around the neck.
PLATE E.3

NUMBERS 933–934 SITE 16. 32/390-I4-1 SURFACE



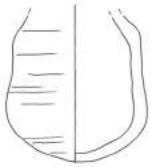
933.
Rd. 14.0 Pht. 8.0
B3 P9
Horizontal loop handle.



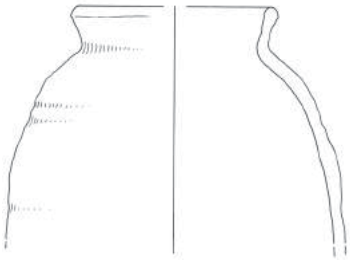
934. //
Rd. 10.0
A1a P1a

NUMBERS 935–937 SITE 17. 32/390-K4-1 TOMB 1

935.
Rd. 25.0–30.0 Pht. 6.0
A1a? Sc1 (int./ext.)



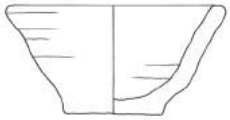
936.
Max.D. 7.5
Pht. 8.0
B1? P6
Blackend ext.



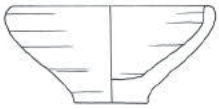
937.
Rd. 10.0? Pht. 12.0
Fabric unknown;
probably B3.

NUMBERS 938–943 SITE 18. 32/390-I4-2

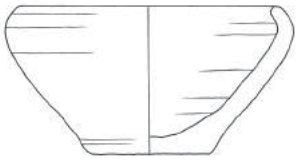
938.
Rd. 20.0 Ht. 5.5
A1a Sr1 (int./ext.)
Burnt on base.



939.
Rd. 11.2-11.6 Bd. 5.2
Ht. 5.5–5.8
A1a P1a

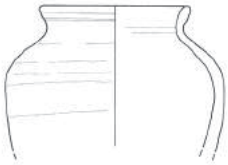


940.
Rd. 10.7 Bd. 4.0
Ht. 5.1
A1a P1a/Sr1?
Blackened int. and part ext.



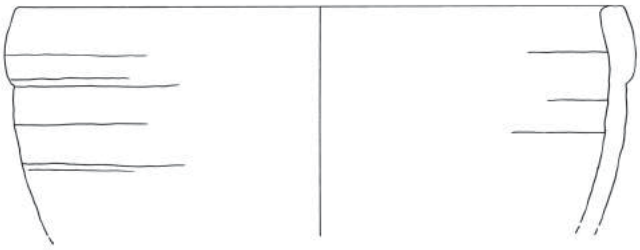
941.
Rd. 13.2–14.1 Bd. 6.3 Ht. 7.8
A1a P1a

942. //
Rd. 8.0
B3 P9

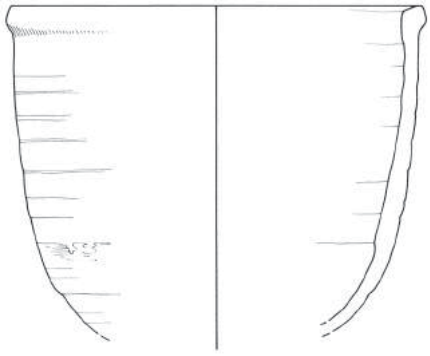


943. //
Rd. 9.0
A1b P1b

NUMBERS 944–947 SITE 19. 32/390-H5-1 STRUCTURE, FILL

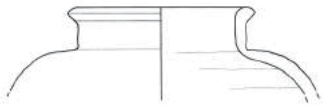


944. //
Rd. 30.0
A1a Sc1 (int./ext.)



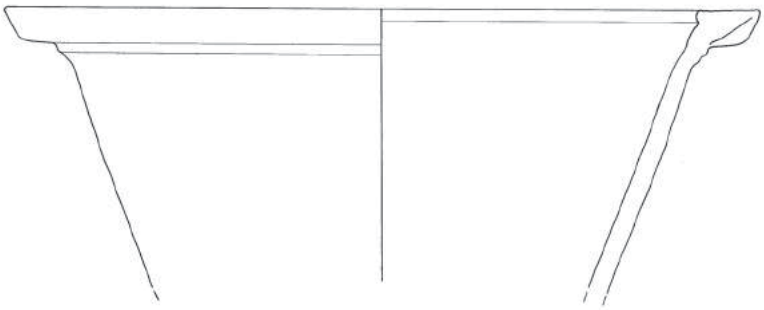
945. //
Rd. 28.0
A1a Sc1 (int./ext.)

946. //
Rd. 11.0
B15 P25
Rim-UB-spout preserved.

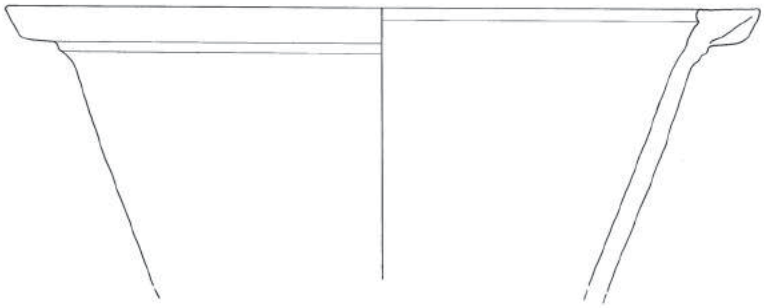


947. //
Rd. 10.0
B3 P9

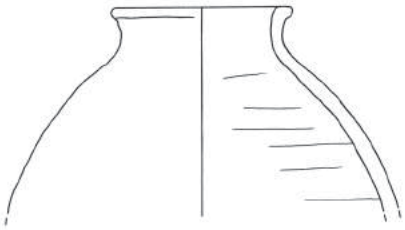
NUMBERS 948–950 SITE 20. 32/390-I6-2 SURFACE



948. //
Rd. 40.0
A1a Sc1 (int./ext.)

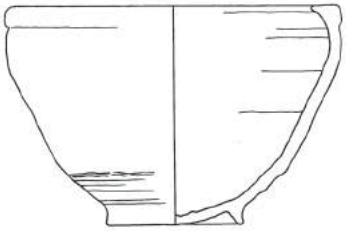


949. //
Rd. 40.0
A1a P1a



950. //
Rd. 12.0
A1a P1a

NUMBER 951 SITE 21. 32/390-F7-1 TOMB 2

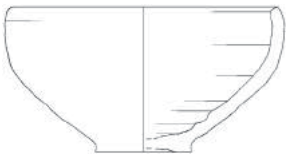


951.
Rd. 17.6? Bd. 7.0 Ht. 11.4
A1a P1a
Complete.

NUMBERS 952–964 SITE 22. 32/405-A8-1 SURFACE (PAGE 1 OF 5)

952. //
Rd. 10.0
A1a P1a

953. //
Rd. 18.0
A1a Sc1 (int./ext.)



954. //
Rd. 15.0
A1a Sc1 (int./ext.)

955.
Rd. 7.0 Pht. 8.0
A4 P4

956.
Rd. 22.0 Pht. 5.0
A1a Sc1 (int./ext.)

957. //
Rd. 34.0
A1a P1a

958.
Rd. 30.0 Pht. 4.0
A1a Sc1 (int./ext.)

959.
Rd. 28.0 Pht. 8.0
A1a Sc1 (int./ext.)

960.
Rd. 24.0 Pht. 6.0
A1a Sc1 (int./ext.)

961.
Rd. 32.0 Pht. 5.0
A2a Scp1 (int./ext.)

962. //
Rd. 22.0
A1a P1a

963. //
Rd. 38.0
A1a Sc1 (int./ext.)

964.
Rd. 40.0 Pht. 6.0
A2a Scp1 (int./ext.)

NUMBERS 965–971 SITE 22. 32/405-A8-1 SURFACE (PAGE 2 OF 5)

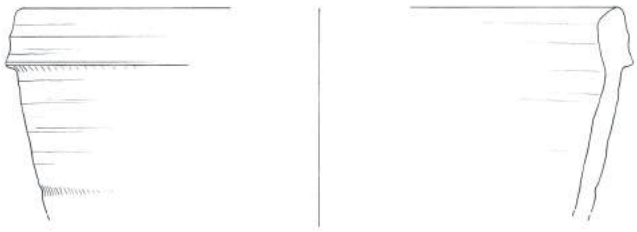
965.
Rd. 36.0 Pht. 8.0
A1a Sc1 (int./ext.)

966.
Rd. 26.0 Pht. 12.0
A1a Sc1 (int./ext.)

967.
Rd. 28.0 Pht. 8.0
A1a Sc1 (int./ext.)

968.
Rd. 22.0 Pht. 6.0
A2a P2a

969.
Rd. 38.0 Pht. 8.0
A1a P1a



970.
Rd. 30.0 Pht. 12.0
A1a Sc1 (int./ext.)

971.
Rd. 32.0 Pht. 11.0
A1a Sc1 (int./ext.)

NUMBERS 972–976 SITE 22. 32/405-A8-1 SURFACE (PAGE 3 OF 5)

972.
Rd. 32.0 Pht. 4.0
A1a P1a

973.
Rd. 32.0 Pht. 6.0
A1a Sc1 (int./ext.)

974.
Rd. 36.0 Pht. 6.0
A1b Sc2 (int./ext.)

975. //
Rd. 36.0
A1a Sc1 (int./ext.)

976.
Rd. 40.0 Pht. 8.0
A4 P4

NUMBERS 977–993 SITE 22. 32/405-A8-1 SURFACE (PAGE 4 OF 5)

977.
Rd. 14.0 Pht. 4.0
A1a Sc1 (ext.)

978.
Rd. 13.0 Pht. 6.0
A1a P1a

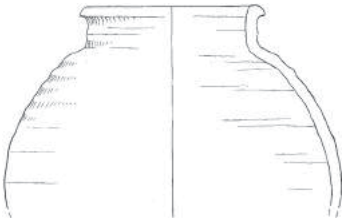
979.
Rd. 9.0 Pht. 4.0
A1a Sc1 (ext.)

980.
Rd. 11.0 Pht. 3.0
A2a/A29 P2a/P38

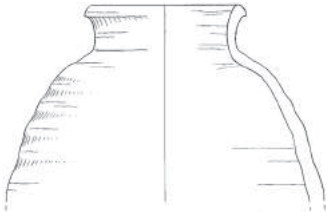
981. //
Rd. 7.0
A1a P1a

982. //
Rd. 8.0
A1b Sc2 (ext./rim)

983.
Rd. 14.0 Pht. 3.0
B1 P6

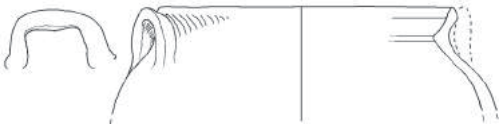


984. //
Rd. 10.0
B3 P9



985. //
Rd. 9.0
A1a P1a

986.
Rd. 10.0 Pht. 4.0
A32 Sc22 (ext./rim)



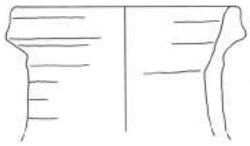
987. //
Rd. 16.0
B3 P9?
Horizontal loop handle.

988. //
Rd. 12.0
A1b Sc2
(ext./rim)

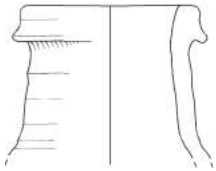
989.
Rd. 10.0 Pht. 4.0
A5 Sc6 (int./ext.)

990.
Rd. 12.0 Pht. 8.0
A1a Sc1 (ext./rim)

991.
Rd. 12.0 Pht. 6.0
A5 Sc6 (ext./rim)

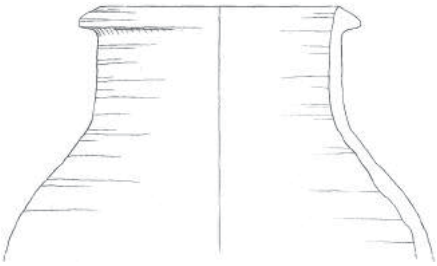


992.
Rd. 11.0 Pht. 6.0
A1a P1a

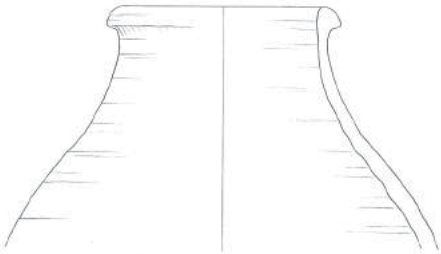


993. //
Rd. 12.0
A1a P1a
Eroded surface.

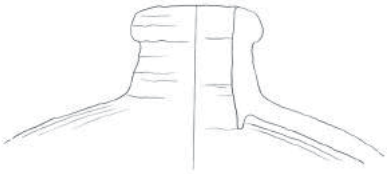
NUMBERS 994–1002 SITE 22. 32/405-A8-1 SURFACE (PAGE 5 OF 5)



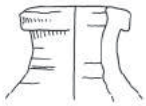
994. //
Rd. 12.0
A1a Sc1/Dc1? (ext.)
Possible red rim.



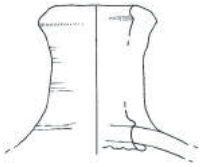
995.
Rd. 12.0 Pht. 13.0
A1b Sc2 (ext./rim)



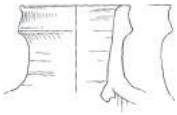
996.
Rd. 7.0 Nht. 5.0
A2a P2a



997.
Rd. 6.0 Pht. 5.0
B3 P9

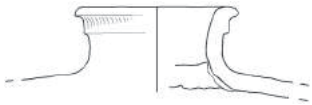


998. //
Rd. 7.0
A2a P2a



999. //
Rd. 6.0
A1b Sc2
(ext./rim)

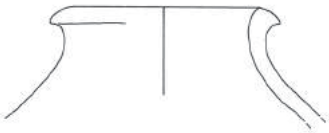
1000.
Rd. 7.0 Nht. 3.0
B3 P9



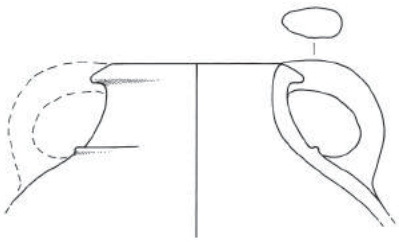
1001. //
Rd. 8.0
B3 P9

1002.
MaxD. c.22.0 Pht. 7.0
A1a Dc1 (ext.)
Red dec. and applied/modelled feature (ear?).
Possible Bes -vessel?
PLATE E.11

NUMBERS 1003–1004 SITE 23. 32/405-C7-2 SURFACE

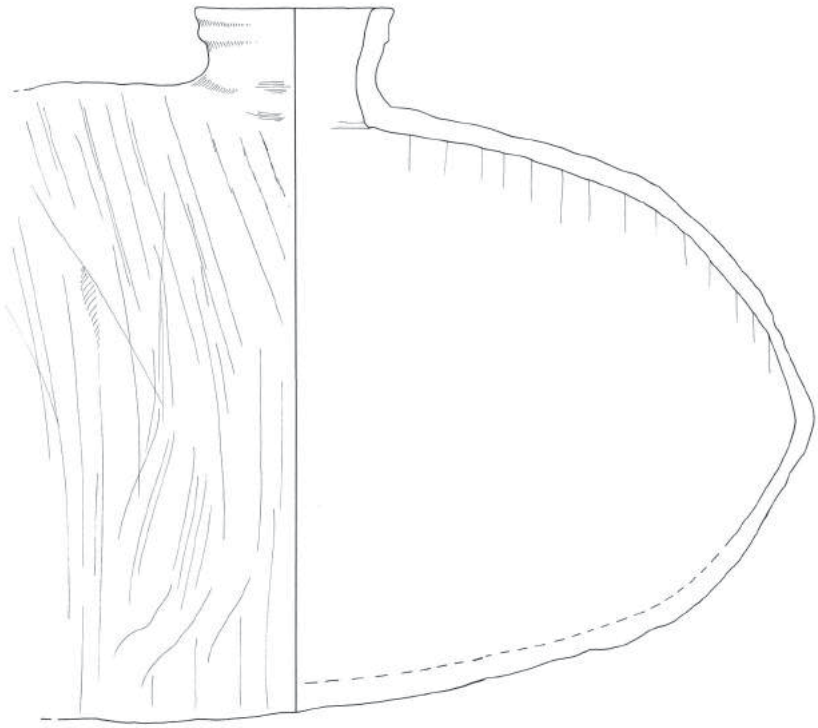


1003. //
Rd. 16.0
A1b P1b



1004. //
Rd. 7.0
A1a P1a

NUMBER 1005 SITE 24. 31/405-D7-2 SURFACE

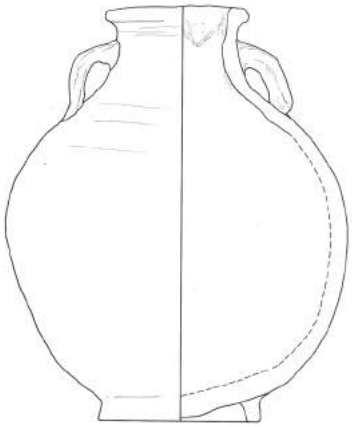


1005.
Rd. 10.4 Ht. 38.0
Fabric Unknown.
PLATE E.12

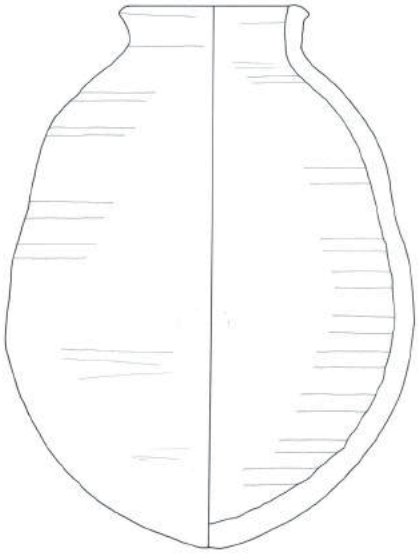
NUMBERS 1006–1009 SITE 24. 31/405-D7-2 TEST 1

1006.
Rd. 8.7–9.0 Ht. 4.4
A2a? Sr2 (int./ext.)
Some blackening int. and ext.

1007.
Rd. 9.2 Ht. 10.5
A1a P1a
Some rim blackening.

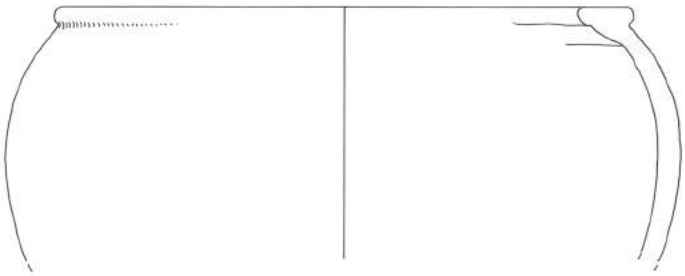


1008.
Rd. 7.5–7.9 Bd. 8.3–8.5
Ht. 21.3–21.8 MaxD. 18.0
A1a Sc1 (ext.)

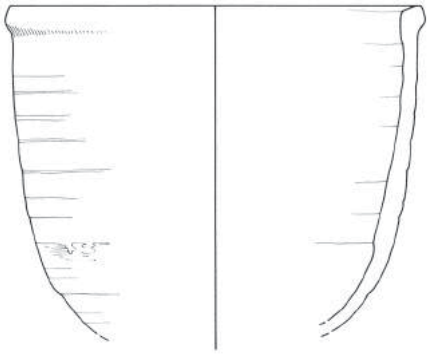


1009.
Rd. 9.8–10.0 Ht. 28.7 MaxD. 22.0
B3 Sr8 (ext.)
Blackened ext. LB.
PLATE E.13

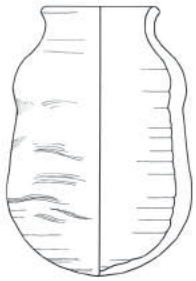
NUMBERS 1010–1015 SITE 25. 31/405-F6-1 SURFACE AND FILL



1010.
Rd. 30.0 Pht. 14.0
A1b Sc2 (ext.)



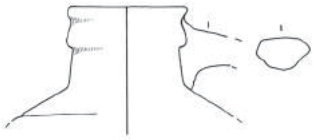
1011.
Rd. 22.0 Pht. 18.0
A1a Sc1 (int./ext.)



1012.
Rd. 6.3 Ht. 14.4
A1a Sc1 (ext.)

1013. //
Rd. 12.0
A1b P1b

1014.
Rd. 12.0 Pht. 8.0
A1a P1a

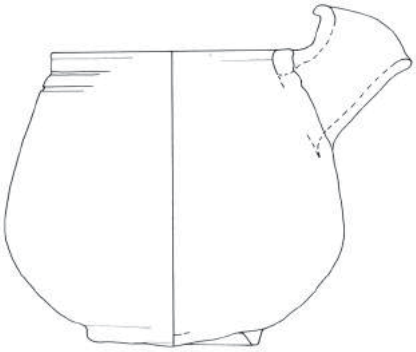


1015.
Rd. 6.0–6.5 Nht. 4.0
A1a P1a
Handle stub preserved.

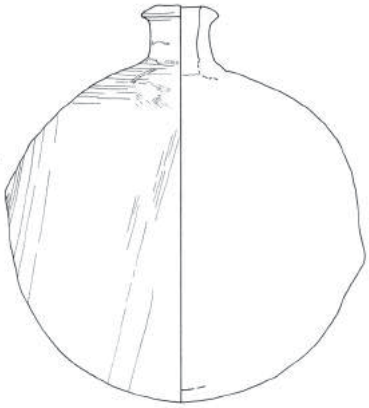
NUMBERS 1016–1020 SITE 25. 31/405-F6-1 ROOM 1, BURIAL LEVEL

1016. //
Rd. 12.0–12.3 Bd.5.4–5.8
Ht. 6.9–7.2
A1a? Dp1
Red rim and dribbles int.

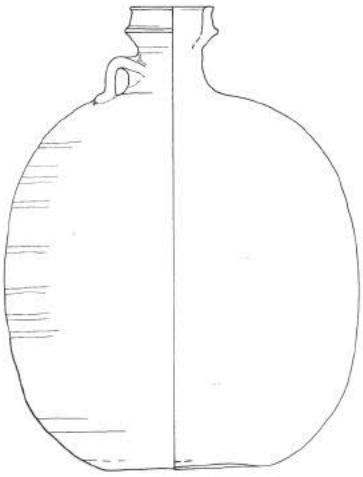
1017. (Reg. 1/01)
Rd. 11.3 Bd. 3.6–3.9
Ht. 7.0–7.8
A1a P1a



1018. (Reg. 1/04)
Rd. 12.4–13.0 Bd. 9.0 Ht. 15.4–15.7
A1a Sc1 (ext./rim)
Heavily burnt on LB.
PLATE E.14



1019. (Reg. 1/05)
Rd. 4.0 Ht. 20.8 MaxD. 18.8
A2a P2a/Sr2? (ext./rim)



1020. (Reg. 1/02)
Rd. 4.3–4.4 Bd. 8.8 Ht. 23.9–24.4
A2a Sr2 (ext./int. neck)
PLATE E.15

NUMBERS 1021–1032 SITE 25. 31/405-F6-1 ROOM 2, UPPER FILL

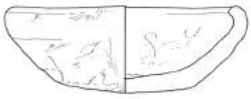
1021. (Reg. 2/07)
Rd. 10.2 Bd. 3.0
Ht. 3.5
A1a Dp1
Black rim band.

1022. (Reg. 2/17)
Rd. 12.2 Bd. 4.5–4.8
Ht. 4.8
B3 Sr8 (ext./rim)

1023. (Reg. 2/15)
Rd. 14.0 Bd. 4.5–4.8
Ht. 4.2–5.3
A1a P1a

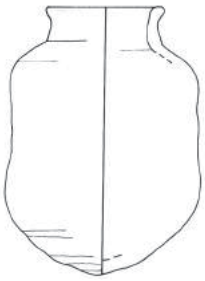
1024.
Rd. 14.8–15.1 Bd. 5.5
Ht. 4.4–5.6
A1a P1a
PLATE E.16

1025. (Reg. 2/16)
Rd. 12.5–13.0 Bd. 6.0–6.5
Ht. 3.8–4.3
A1a P1a

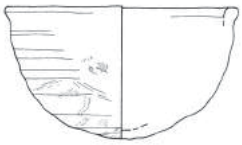


1026.
Rd. 12.0 Bd. 7.0–7.4
Ht. 4.8
A1a P1a

1027. (Reg. 2/02)
Rd. 3.5–5.6 Bd. 2.8
Ht. 5.4–5.8
A1a P1a
Two holes at neck.
PLATE E.17



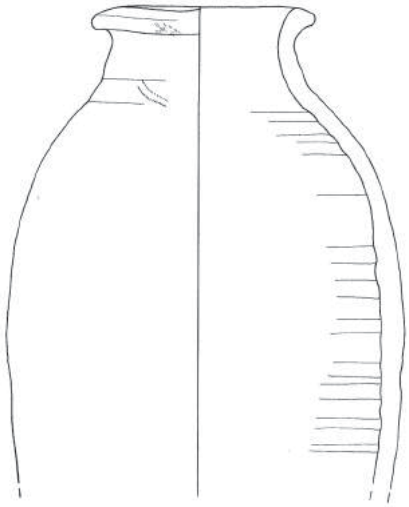
1028. (Reg. 2/33)
Rd. 6.0 Ht. 14.1
MaxD. 10.4
A1a Sc1 (ext./rim)



1029.
Rd. 12.3–12.4 Ht. 7.0
A1a P1a

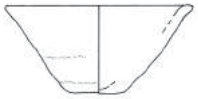
1030. (Reg. 2/08)
Rd. 4.4 Ht. 19.8
MaxD. 10.0
A1a Dc1 (ext.)
Handle stumps.
Black bands.
PLATE E.18

1031. (Reg. 2/05)
Rd. 6.8 Ht. 17.6
MaxD. 10.4
A1a Sc1 (ext./rim)
PLATE E.19

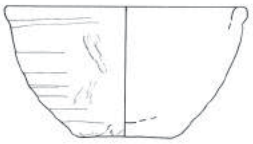


1032.
Rd. 11.3–11.8 MaxD. 21.0 Pht. 26.0
A1a Sr1 (ext./rim)

NUMBERS 1033–1042 SITE 25. 31/405-F6-1 ROOM 2, FILL



1033. //
Rd. 7.0 Bd. 2.7
Ht. 5.8
A1a P1a

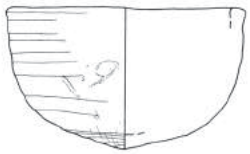


1034. (Reg. 2/12)
Rd. 12.6–13.0
Bd. 6.0 Ht. 6.8–7.0
A1a Dp1
Red rim band.

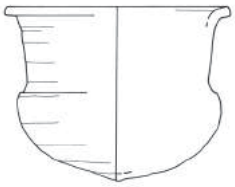
1035. (Reg. 2/13)
Rd. 10.9–11.2
Bd. 6.5–6.8 Ht. 6.5–6.8
A1a P1a

1036. //
Rd. 12.9 Bd. 5.7
Ht. 4.0–5.0
A1a P1a

1037. (Reg. 2/19)
Rd. 9.7–10.2 Ht. 7.4
A1a/A2a Dp1/Dp2
Black dec.
PLATE E.20

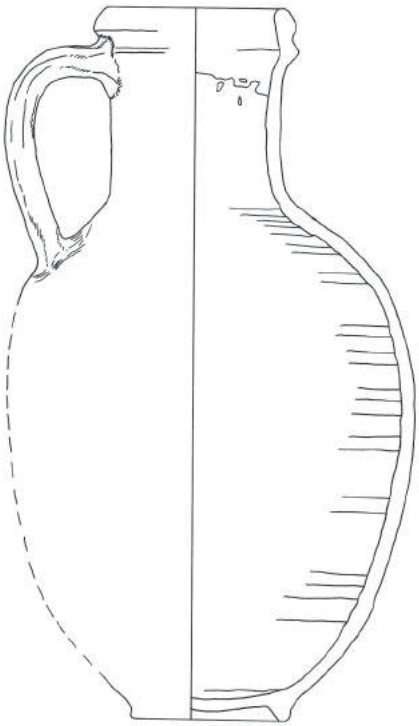


1038. (Reg. 2/11)
Rd. 12.5–12.7 Ht. 7.5
A1a P1a

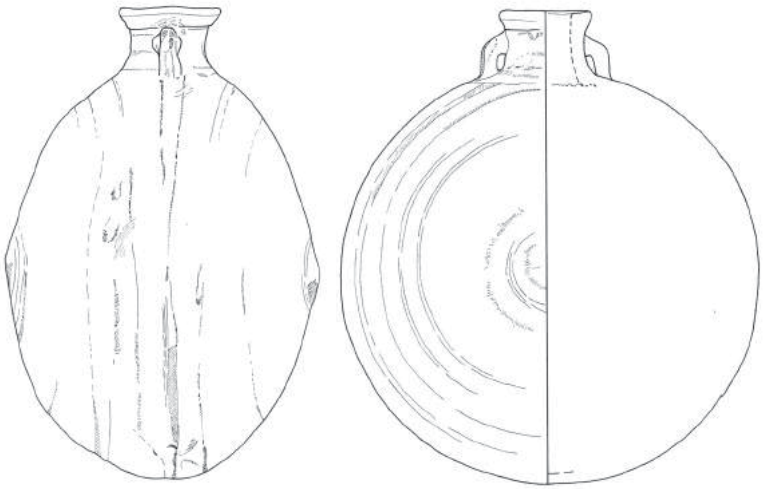


1039. (Reg. 2/30)
Rd. 11.0–12.0 Ht. 9.2
A2a Sc3 (ext./int.)
Burnt int.
PLATE E.21

1040. (Reg. 2/21)
Rd. 13.7–14.0 Bd. 8.4 Ht. 17.5–19.5
A1a P1a
Severely burnt ext. LB and base.
Incised graffito, undeciphered.
PLATE E.23



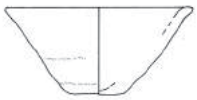
1041.
Rd. 10.7 Bd. 8.4 Ht. 37.4
A1a Sc1 (ext./rim)
Black staining on rim and neck.



1042. (Reg. 2/01)
Rd. 4.9–5.3 Ht. 25.0 MaxD. 22.0
A1a/A2a Sr1/Sr2 (ext./rim)
PLATE E.24

NUMBERS 1043–1054 SITE 25. 31/405-F6-1 ROOM 2, BURIAL LEVEL (PAGE 1 OF 2)

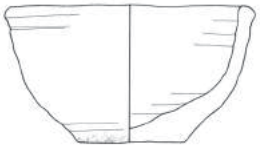
1043. (Reg. 2/09)
Rd. 9.3 Bd. 5.0
Ht. 2.5–2.8
A1a P1a
Burnt int. and part ext.



1044. (Reg. 2/18)
Rd. 9.5–9.8
Bd. 3.0–3.2 Ht. 4.9
A1a P1a?

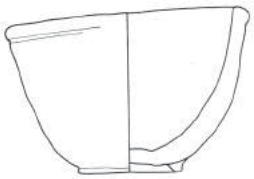
1045. //
Rd. 11.3–11.6 Bd. 5.2–5.6
Ht. 6.5–6.8
A1a Sc1 (int./ext.)

1046. //
Rd. 13.0–13.2 Bd. 5.5?
Ht. 7.5
A1a/A31? P1a/P41?
Mud on base.

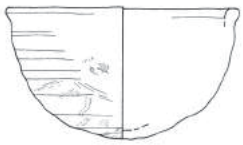


1047.
Rd. 13.2 Bd. 5.6 Ht. 7.3
A1a Dp1
Red rim band.

1048.
Rd. 12.2–12.6
Bd. 3.6–3.8 Ht. 7.7–8.0
A1a Sc1 (int./rim)



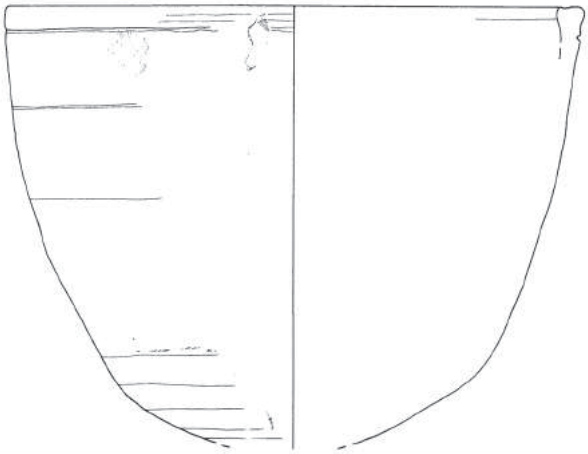
1049.
Rd. 12.8–13.0
Bd. 5.4 Ht. 8.0–8.6
B3 P9



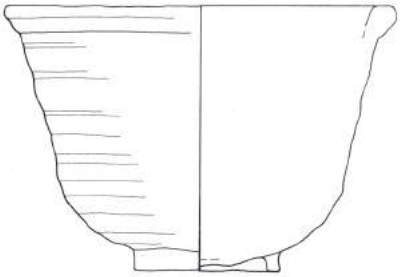
1050. //
Rd. 12.7–13.0 Ht. 7.0
A1a P1a

1051. (Reg. 2/10)
Rd. 9.5 Bd. 4.8
Ht. 3.8–3.9
A1a P1a

1052.
Rd. 10.5 Bd. 5.0–5.4
Ht. 4.0
B3 Sr8 (ext./int.)

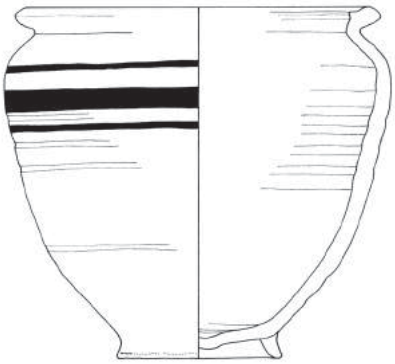


1054.
Rd. 26.5–30.0 Pht. 24.0
A1a/A2a Sc1/Sc3 (ext./rim)
Int. stained black.

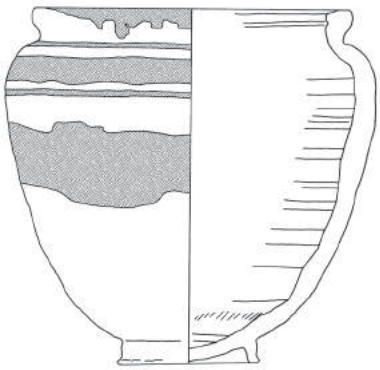


1053. (Reg. 2/22)
Rd. 20.4–21.2 Bd. 7.8
Ht. 13.7–14.0
A1a P1a
PLATE E.22

NUMBERS 1055–1060 SITE 25. 31/405-F6-1 ROOM 2, BURIAL LEVEL (PAGE 2 OF 2)



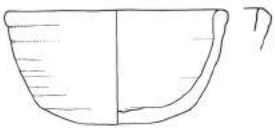
1055.
Rd. 19.1–19.3 Bd. 8.6 Ht. 18.5
A1a Dr1 (ext./rim)
Black bands.



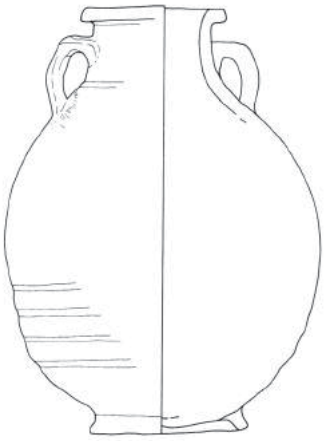
1056.
Rd. 17.0 Bd. 7.5 Ht. 18.8
A1a Dc1 (ext./int.)
Red rim and bands.

1057. (Reg. 2/31)
Rd. 8.0–8.3 Bd. 8.0 Ht. 25.3
A1b Sc2 (ext./rim)

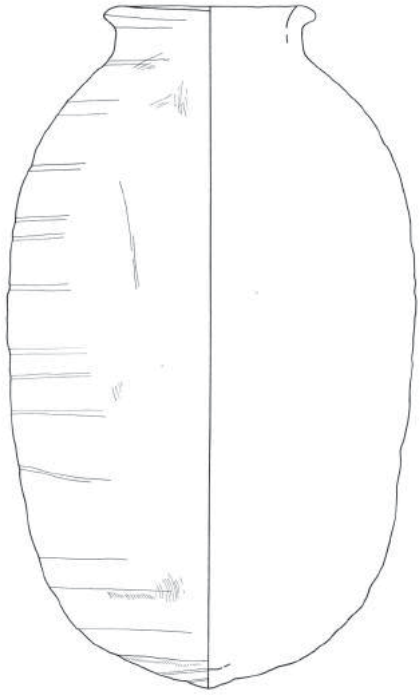
SITE 25. 31/405-F6-1 ROOM 3



1058.
Rd. 11.0 Ht. 6.0
A1a P1a
Irregular rim.

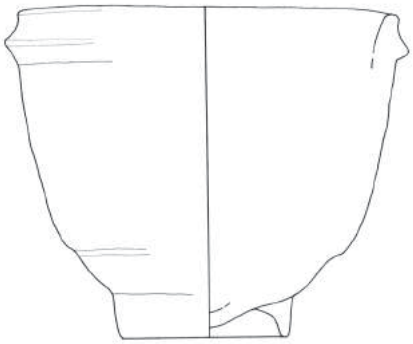


1059. (Reg. 3/01)
Rd. 7.4–7.7 Bd. 8.5
Ht. 22.0–22.6
A1a Sc1? (ext./rim)
PLATE E.25



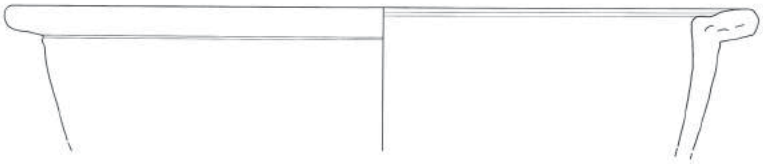
1060.
Rd. 10.7–11.2 Ht. 36.0 MaxD. 22.0
A1a Sc1 (ext./rim)

NUMBER 1061 SITE 26. 31/405-F9-1 (BIR SHAGALA) TOMB 3, FILL



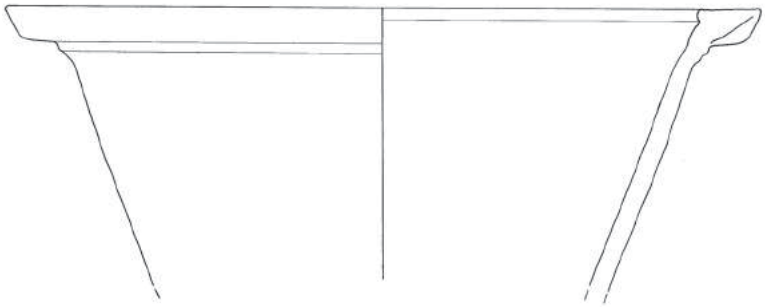
1061.
Rd. 18.8–20.1 Bd. 9.0
Ht. 17.2–17.9
A1a Sc1 (ext./int.)
PLATE E.26

NUMBER 1062 SITE 26. 31/405-F9-1 (BIR SHAGALA) KILN



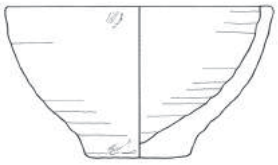
1062. //
Rd. c. 38.0
A1a P1a

NUMBER 1063 SITE 27. 31/405-F9-5 SURFACE



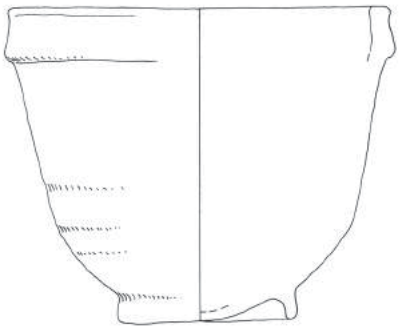
1063. //
Rd. 40.0
A1a P1a

NUMBER 1064 SITE 27. 31/405-F9-5 GRAVE 1

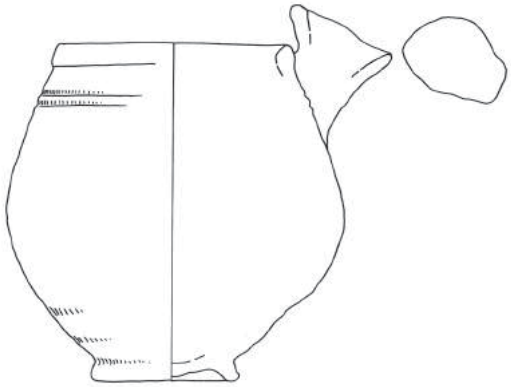


1064.
Rd. 13.6–14.0 Bd. 5.5
Ht. 7.8–8.1
A1a Sc1 (ext./int.)

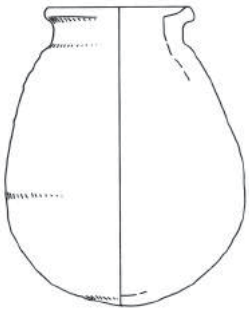
NUMBERS 1065–1068 SITE 28. 31/405-G9-2 (TELL EL-MARQULA) UNKOWN CONTEXT



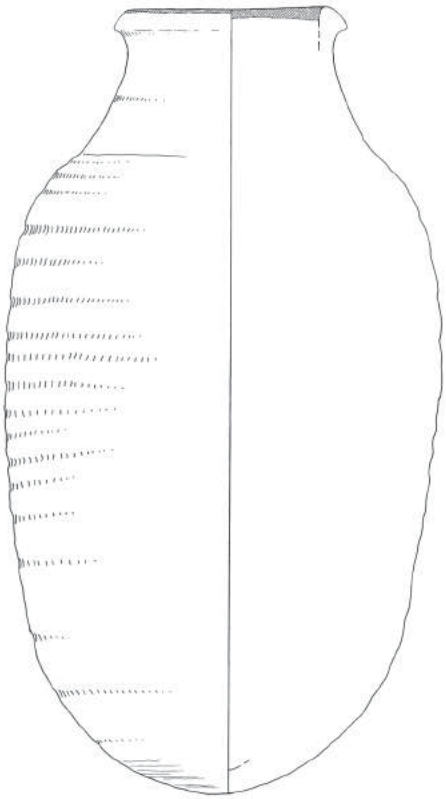
1065.
Rd. 20.4 Bd. 9.6 Ht. 16.8
A1a Sc1 (int./ext.)



1066.
Rd. 12.0 Bd. 8.0 Ht. 18.0
A1a Sc1 (ext.)
Blackened.

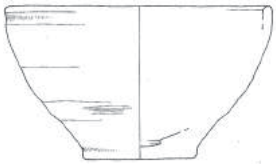


1067.
Rd. 8.0 Ht. 16.0
MaxD. 12.8
A1a Sc1 (ext.)



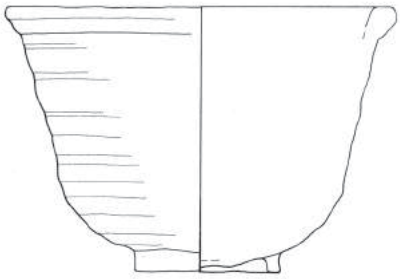
1068.
Rd. 12.0 Ht. 41.6 MaxD. 23.0
A1a Dc1 (ext.)
Red rim.

NUMBERS 1069–1075 SITE 30. 31/405-G9-3 (HUMAYAT B) UNKOWN CONTEXT

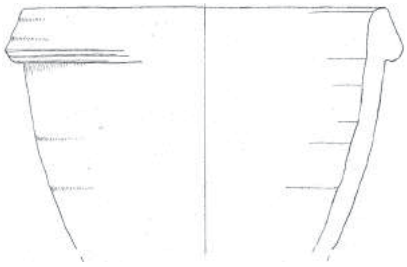


1069.
Rd. 14.0 Bd. 6.0 Ht. 8.0
A28? P37

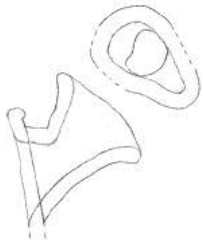
1070.
Rd. 18.0 Pht. 6.0
Fabric unknown.



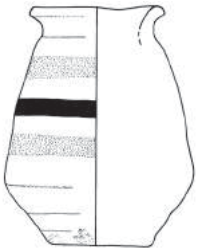
1071. //
Rd. c. 20.0
Fabric unknown.



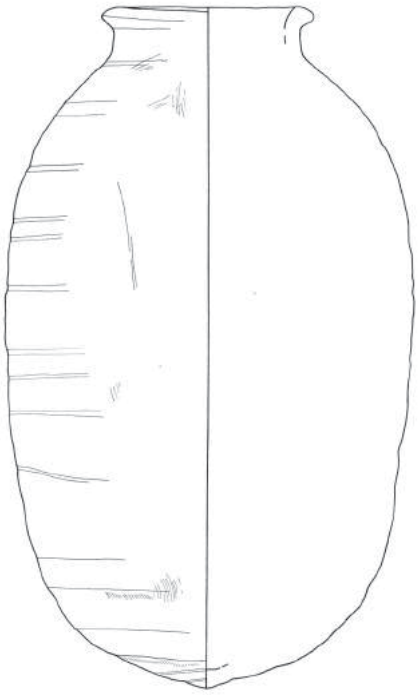
1072.
Rd. 20.0 Pht. 14.0
A28? P37



1073.
Rd. Unknown.
Sp. 4.0 x 6.0
A28? P37

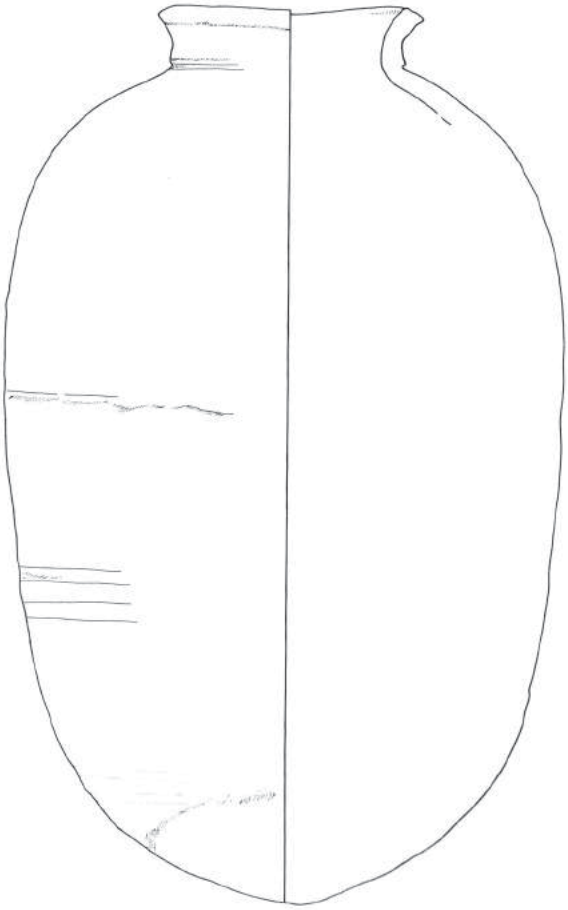


1074. //
Rd. c. 8.0
Fabric unknown.

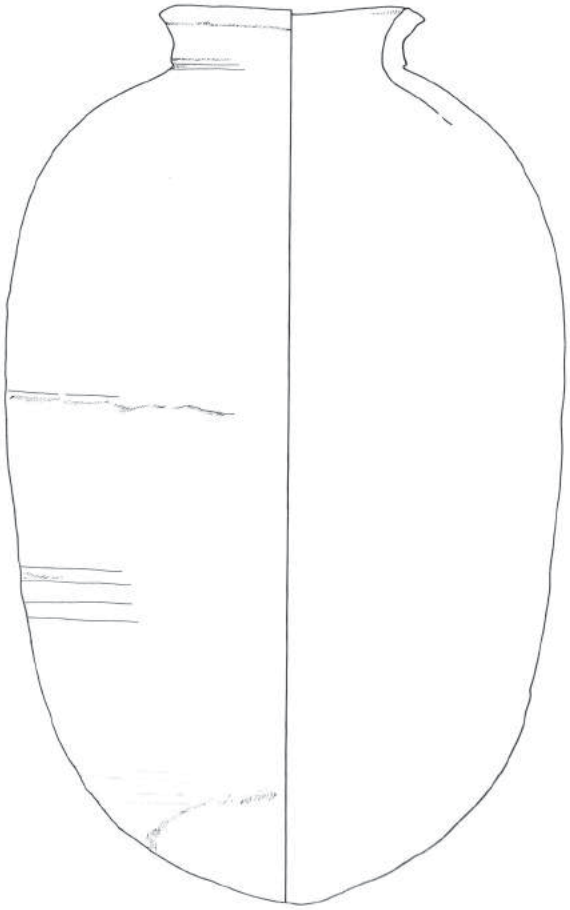


1075. //
Rd. c.12.0
Fabric unknown.

NUMBERS 1076–1077 SITE 31. 31/405-H9-2 TOMB 1 (PAGE 1 OF 2)

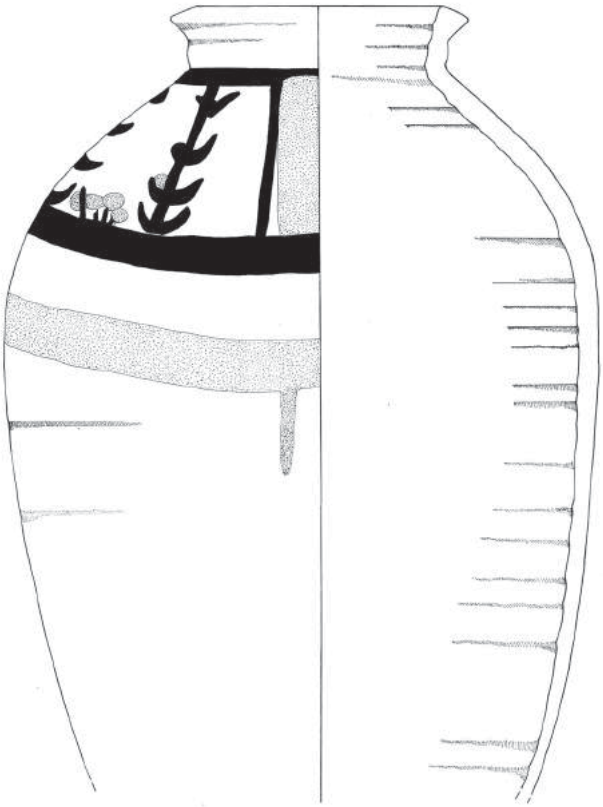


1076.
Rd. 13.8–14.1 Ht. 47.3 MaxD. 30.0
A1a Sc1? (ext./rim)
PLATE E.27

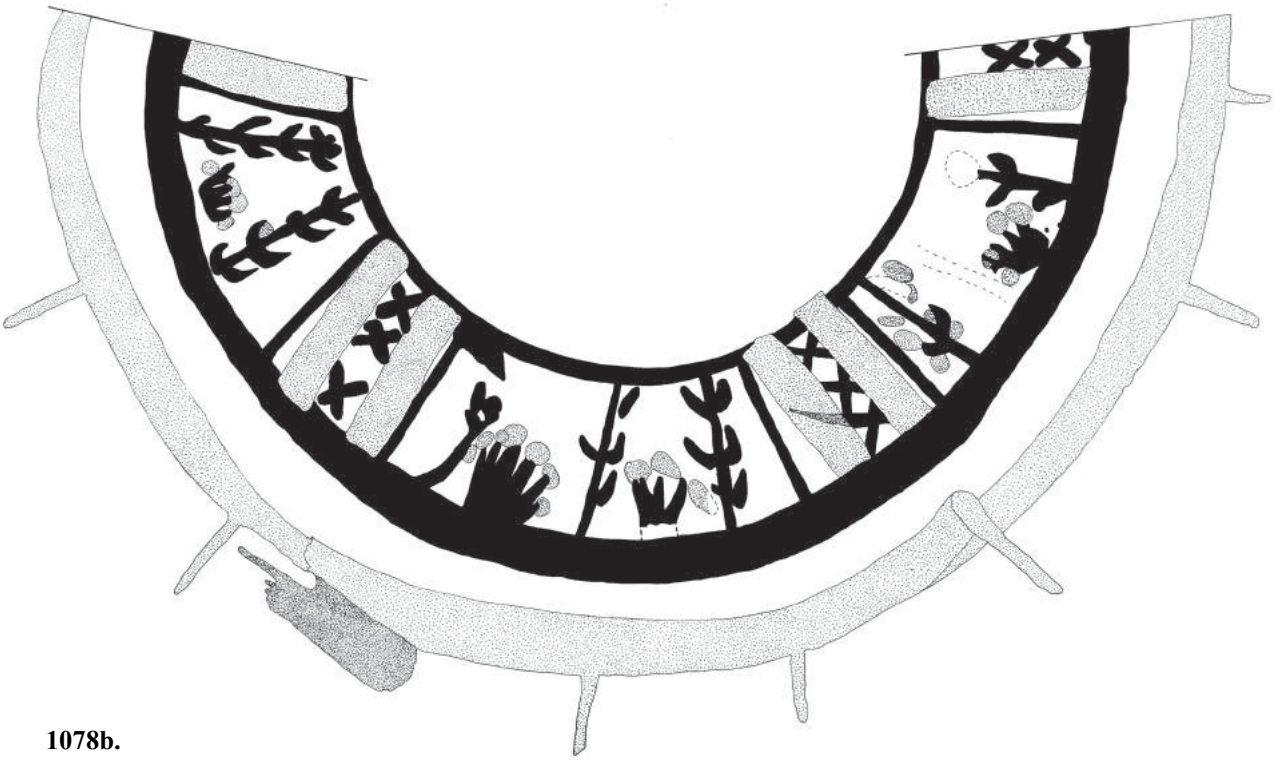


1077. //
Rd. 14.2–14.7 Ht. 45.5 MaxD. 29.2
A1a Sc1 (ext./rim)

NUMBER 1078 SITE 31. 31/405-H9-2 TOMB 1 (PAGE 2 OF 2)

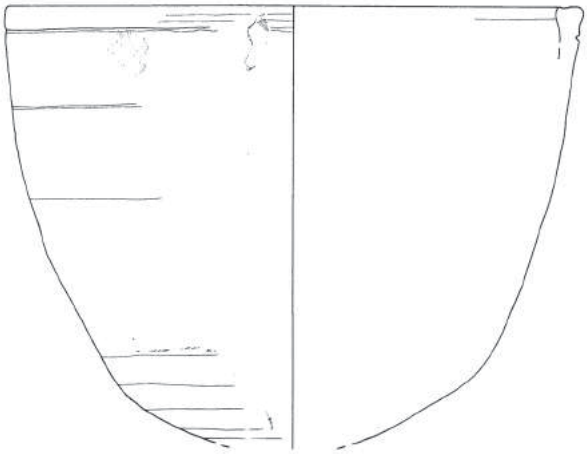


1078a.
Rd. 15.8 MaxD. 32.0 Pht. 42.0
A1a Dc1 (ext./rim)
Black and red dec.
See rolled-out decoration below (1078b).

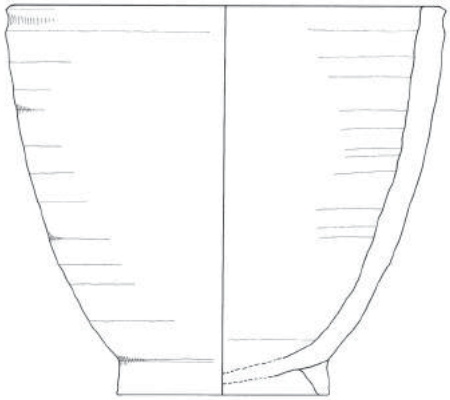


1078b.
Rolled-out decoration for 1078a.

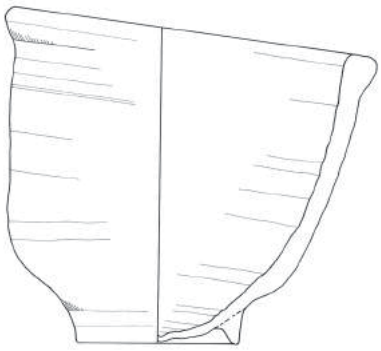
NUMBERS 1079–1082 SITE 32. 31/405-H10-1 SURFACE



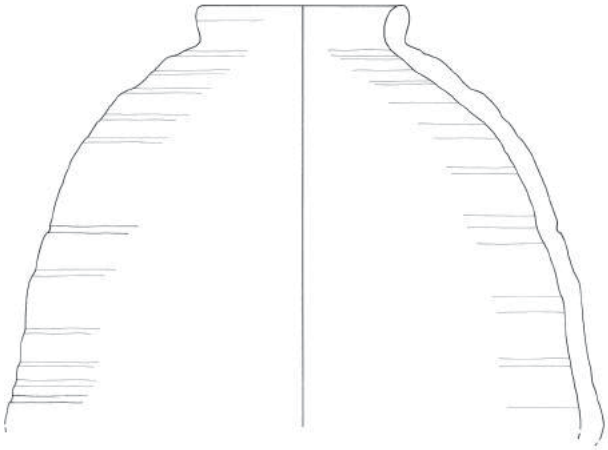
1079. //
Rd. c. 30.0
A1a P1a
Rim preserved.



1080. //
Rd. c. 22.0
A1a P1a
Double groove below rim.
Rim-UB preserved.

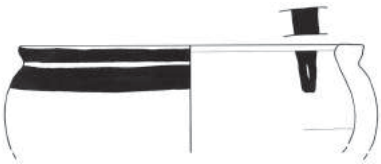


1081. //
Rd. c. 20.0
A1a P1a
Rim preserved.



1082. //
Rd. c. 10.0
A2a P2a

NUMBER 1083 SITE 32. 31/405-H10-1 TEST 1, FILL

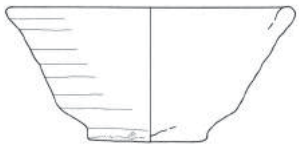


1083. //
Rd. c. 18.0
A1a Dc1 (ext./rim)
Red and black dec.

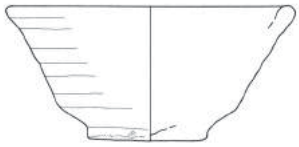
NUMBERS 1084–1093 SITE 33. 31/405-H10-3 TOMB 1

1084. (Reg. 1/11)
Rd. 12.5–12.8
Bd. 4.7 Ht. 6.3
A1a P1a
Black stain int. and dribbles ext.
PLATE E.28

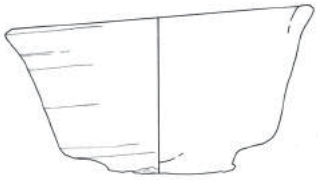
1085. // (Reg. 1/09)
Rd. 12.5–12.9
Bd. 5.1–5.5 Ht. 6.2–6.9
A1a P1a
Black resinous substance int./ ext. and over rim break.
PLATE E.28



1086. (Reg. 1/06)
Rd. 14.9–15.0
Bd. 5.9–6.1 Ht. 7.0–7.2
A1a P1a

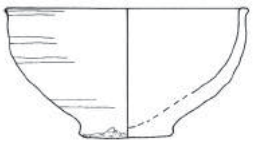


1087. // (Reg. 1/07)
Rd. 14.5–15.0 Bd. 6.5
Ht. 7.9–8.6
A1a P1a
Stained black int. and ext.
UB.



1088a. (Reg. 1/08)
Rd. 16.4 Bd. 6.5–6.8
Ht. 7.7–9.0
A1a Sc1 (int./ext.)
Black stained ext. and int.
PLATE E.29

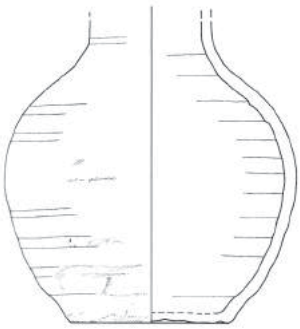
1088b. // (Reg. 1/04)
Rd. 14.7–15.2 Ht. 7.2
A1a/A31? P1a/P41?



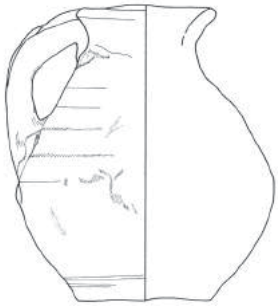
1089. // (Reg. 1/10)
Rd. 12.2–12.4 Bd. 4.3–4.5
Ht. 6.5–7.1
A1a P1a
Black stained ext. and int.

1090. (Reg. 1/02)
Rd. 14.1–14.4
Bd. 4.3–4.5 Ht. 7.2–7.8
A1a Sc1 (int./ext.)
Resinous coating int.

1091. (Reg. 1/03)
Rd. 13.2–13.6 Bd. 10.2
Ht.18.8–19.6
A1a P1a
Black resinous coating int. and dribbles on rim and under base.
PLATE E.30

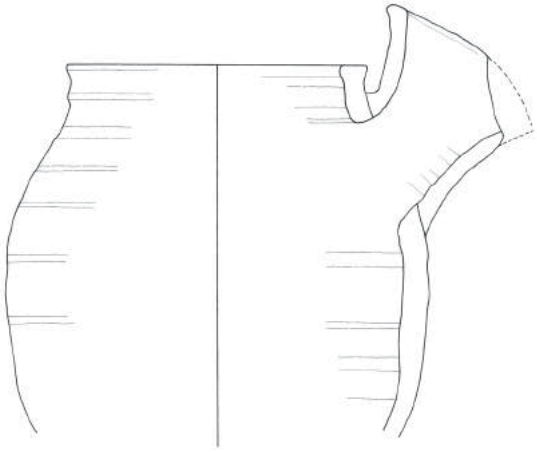


1092. (Reg. 1/01)
Bd. 8.6 MaxD. 16.0
Pht. 16.0
A1a Sc1 (ext./int. LB)

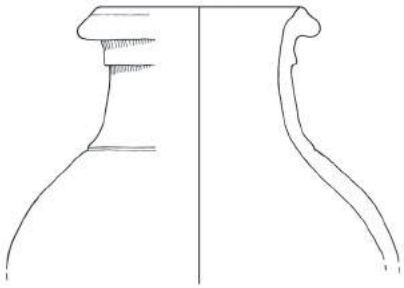


1093. (Reg. 1/05)
Rd. 7.8–8.2 Bd. 7.0–7.4
Ht. 15.3–15.9
A1a P1a
Black resinous coating int. and dribbles ext.
Linen pieces int.
PLATE E.31

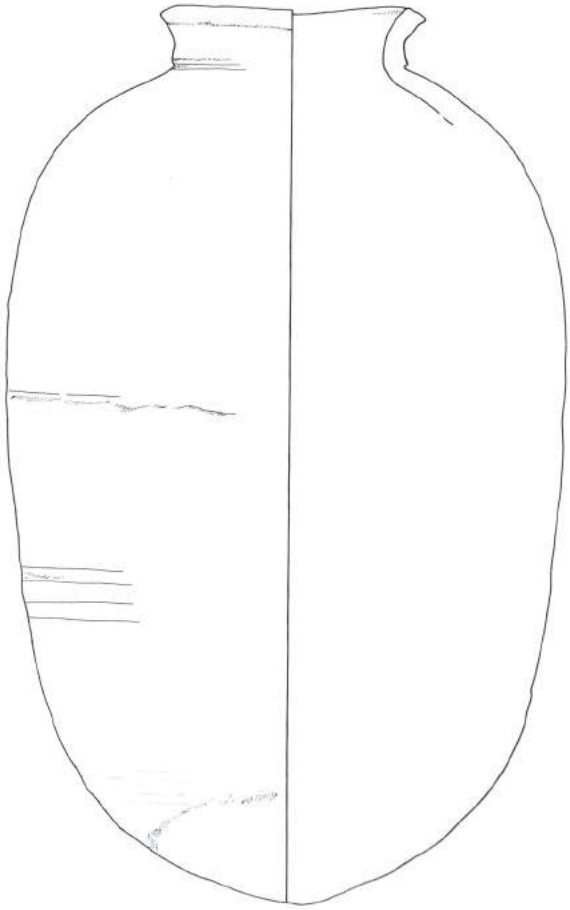
NUMBERS 1094–1096 SITE 34. 31/405-K10-4 SURFACE



1094. //
Rd. 18.0
A1a P1a
Rim-UB-spout preserved.

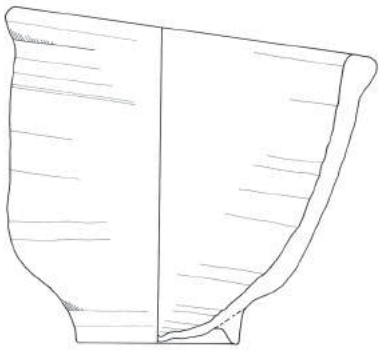


1095.
Rd. 12.4 Pht. 14.0
A1a Sc1 (ext.)



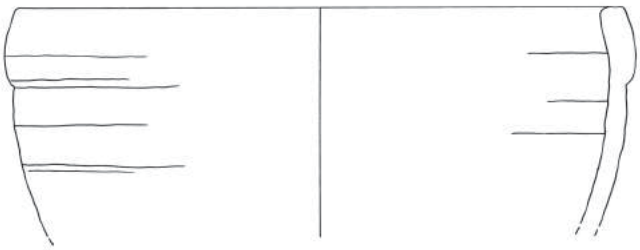
1096. //
Rd. 18.0
A1a Sc1 (ext.)
Rim-UB preserved.

NUMBER 1097 SITE 34. 31/405-K10-4 WELL FILL



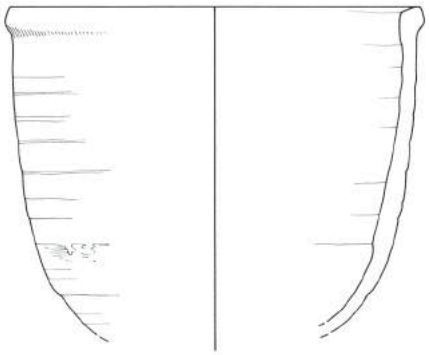
1097. //
Rd. 24.0
A1a P1a
Complete.

NUMBERS 1098–1105 SITE 35. 31/405-K10-7 SURFACE

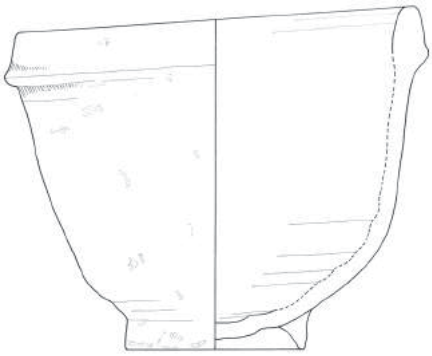


1098. //
Rd. 30.0
A1a Sc1 (int./ext.)

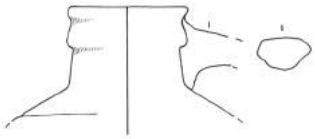
1099. //
Rd. 24.0
A1a P1a



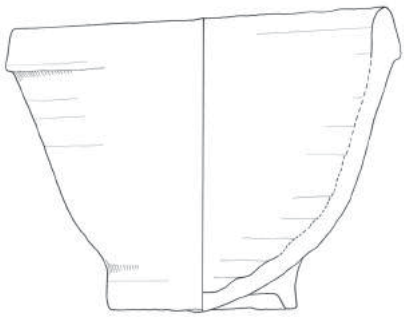
1100. //
Rd. 21.0
A1a P1a
Rim preserved.



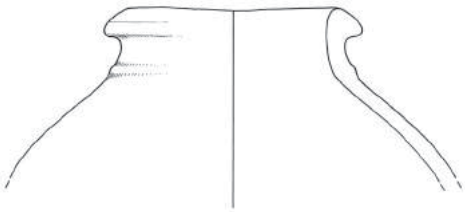
1101. //
Rd. 22.0
A1a P1a
Rim preserved.



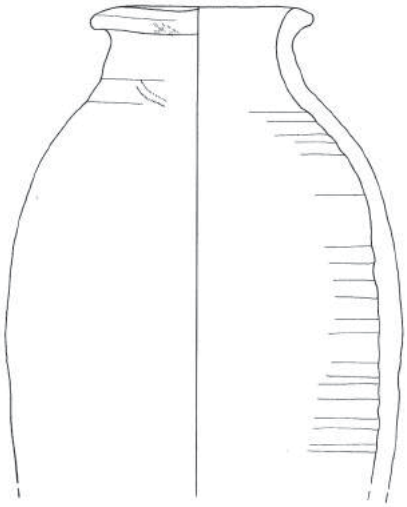
1102. //
Rd. 8.0
A1a P1a



1103. //
Rd. 20.0
A1a P1a
Rim preserved.

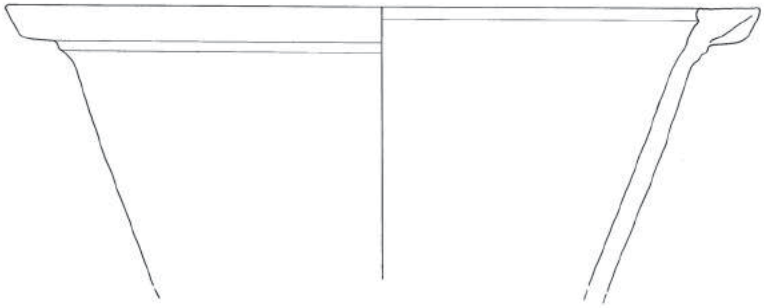


1104. //
Rd. 13.0
A1a Sc1 (ext.)

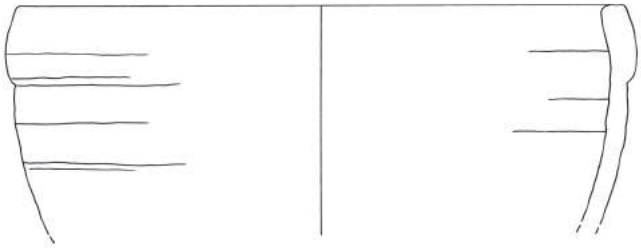


1105. //
Rd. 13.0
A1a P1a
Rim-UB preserved.

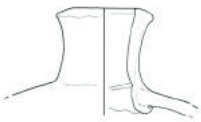
NUMBERS 1106–1108 SITE 36. 31/405-K10-3 SURFACE



1106. //
Rd. 36.0
A1a P1a

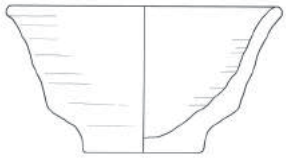


1107. //
Rd. 24.0
A1b P1b

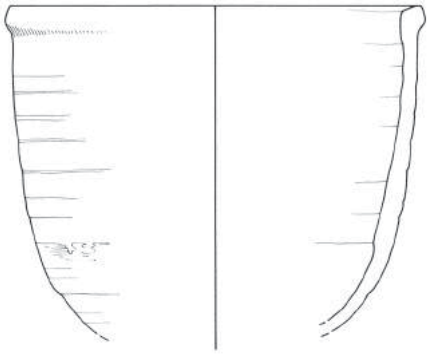


1108. //
Rd. 8.0
A1b Sc2 (ext.)

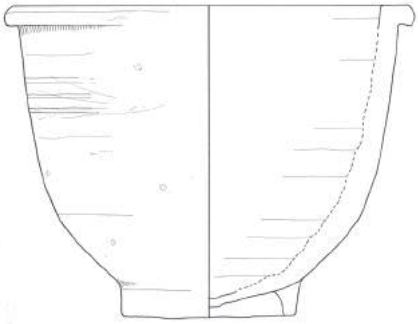
NUMBERS 1109–1114 SITE 36. 31/405-K10-3 TEST 1, FILL



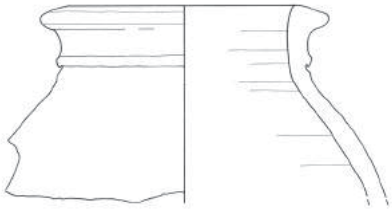
1109. //
Rd. 15.0 Bd. 6.4 Ht. 8.7
A1a Sc1 (int./ext.)



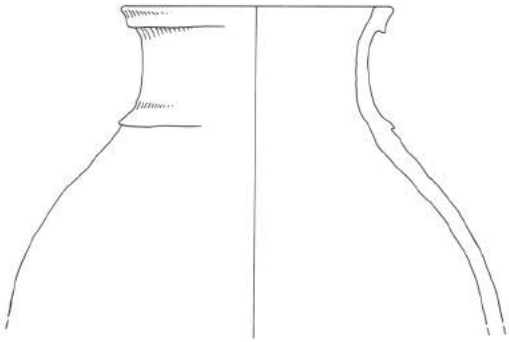
1110. //
Rd. c. 20.0
A1a Sc1 (int./ext.)
Rim preserved.



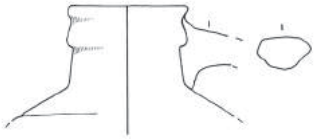
1111. //
Rd. 22.0
A1a P1a
Rim preserved.



1112. //
Rd. 14.0
A1a P1a



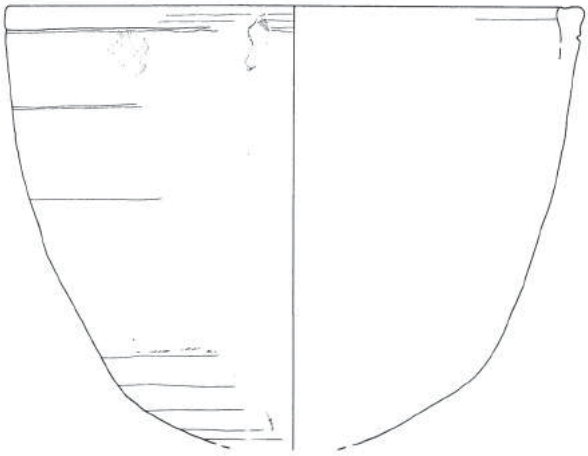
1113.
Rd. 14.0
A1a Sc1



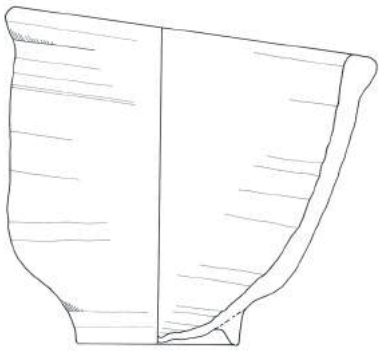
1114. //
Rd. c. 6.0
A1a Sc1 (ext.)

NUMBERS 1115–1121 SITE 37. 31/405-K10-8 SURFACE

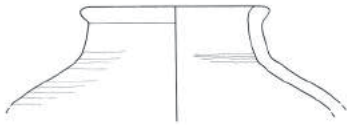
1115. //
Rd. 40.0
A1a Sc1 (int./ext.)



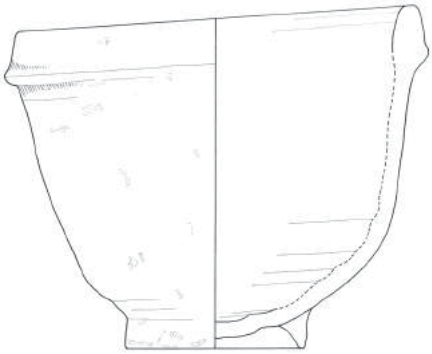
1116. //
Rd. 32.0
A1a P1a
Rim preserved.



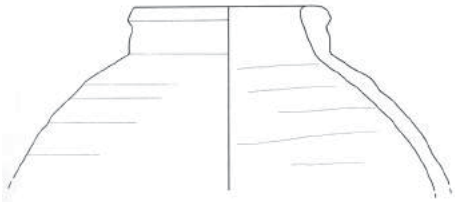
1117. //
Rd. 26.0
A1a P1a
Rim preserved.



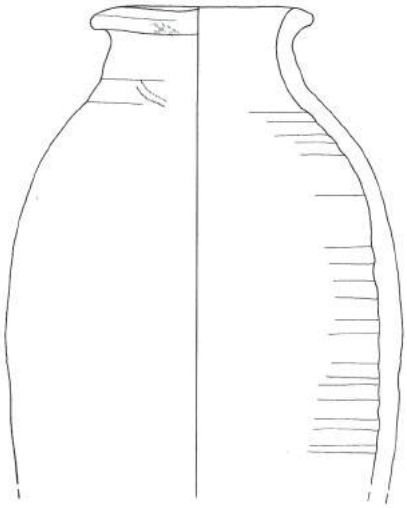
1118. //
Rd. 9.0
A1a Sc1 (ext.)



1119. //
Rd. 24.0
A1a Sc1 (int./ext.)
Rim preserved.

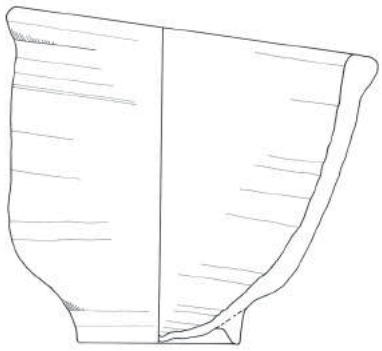


1120. //
Rd. 9.0
A1a P1a

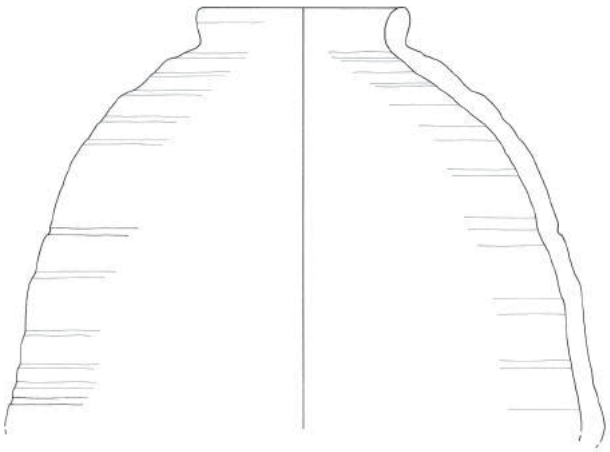


1121. //
Rd. 12.0
A1a P1a
Rim-UB preserved.

NUMBERS 1122–1123 SITE 38. 31/405-L10-1 SURFACE

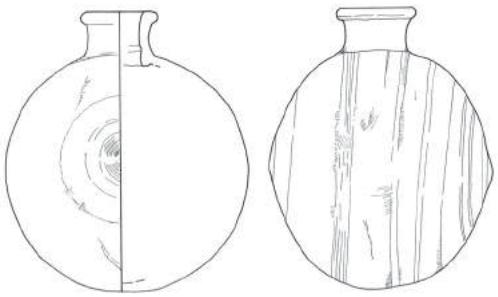


1122. //
Rd. c. 20.0
A1a Sc1 (int./ext.)
Rim preserved.



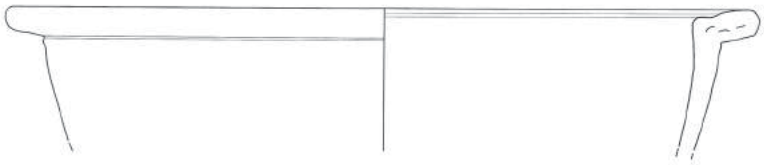
1123. //
Rd. c. 10.0
Fabric unknown.

NUMBER 1124 SITE 38. 31/405-L10-1 TOMB 1, FILL



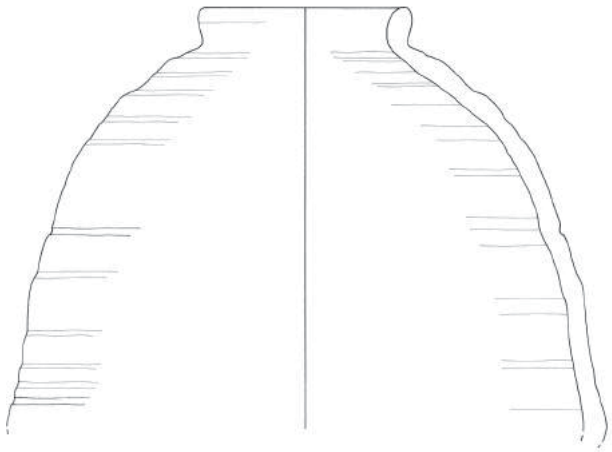
1124.
Rd. 4.0 Ht. 14.8 MaxD. 12.5
A1a Sc1 (ext.)
Complete.

NUMBERS 1125–1127 SITE 39. 31/405-L9-2 SURFACE



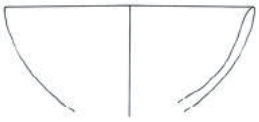
1125. //
Rd. 44.0
A1a Dc1 (ext.)
Red band on rim top.

1126. //
Rd. c. 40.0
A1b P1b



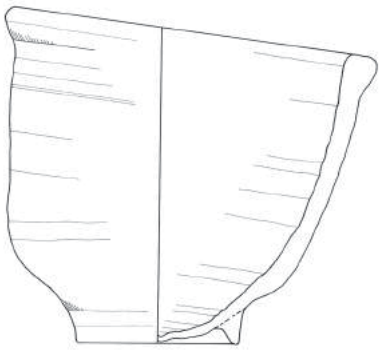
1127. //
Rd. 18.0
A2a P2a

NUMBERS 1128–1132 SITE 39. 31/405-L9-2 TEST 1, FILL



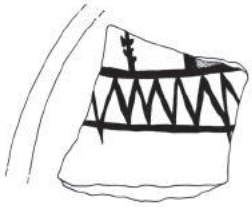
1128.
Rd. 13.0
A1a P1a
Rim preserved.

1129. //
Rd. 14.0
A1a Sc1 (int./ext.)
Rim preserved.



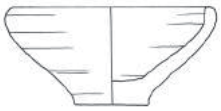
1130. //
Rd. 22.0
A1a Sc1 (int./ext.)
Rim preserved.

1131.
Rd. 36.0
A1a Sc1 (int./ext.)

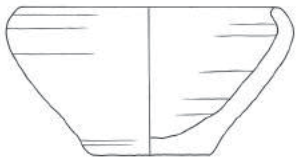


1132.
B/S
A1a Dc1
Red and black dec.

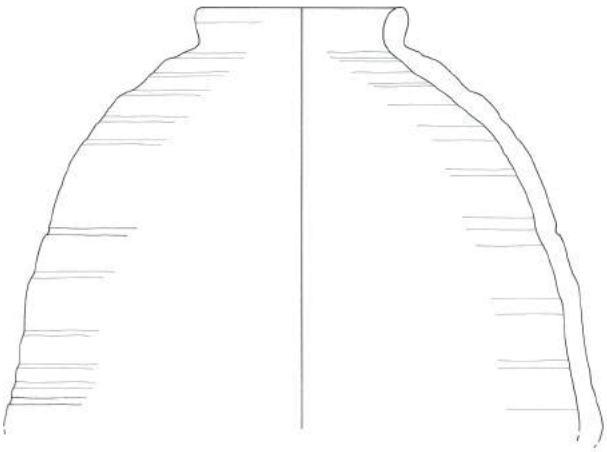
NUMBERS 1133–1140 SITE 40. 31/405-L10-2 SURFACE



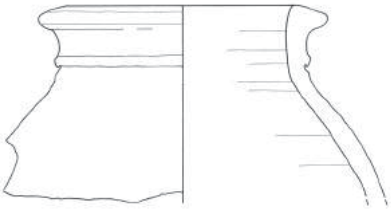
1133.
Rd. c. 10.0
A1a P1a



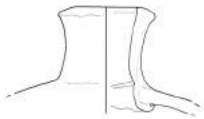
1134. //
Rd. 14.0
Fabric unknown.
Rim preserved.



1135. //
Rd. 10.0
A2a P2a



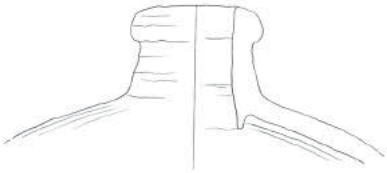
1136. //
Rd. c. 12.0
A1a Sc1 (ext.)



1137. //
Rd. 5.3
A1a P1a

1138. //
Rd. 10.0
A1a Dc1 (ext.)
Red rim, black band.

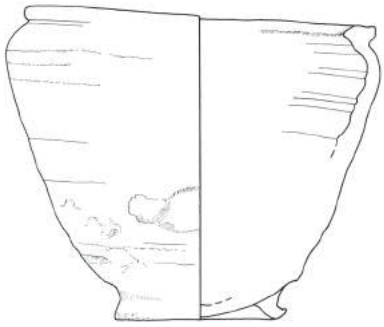
1139. //
Rd. 12.0
Fabric unknown.



1140. //
Rd. 7.0
A1b Sc2

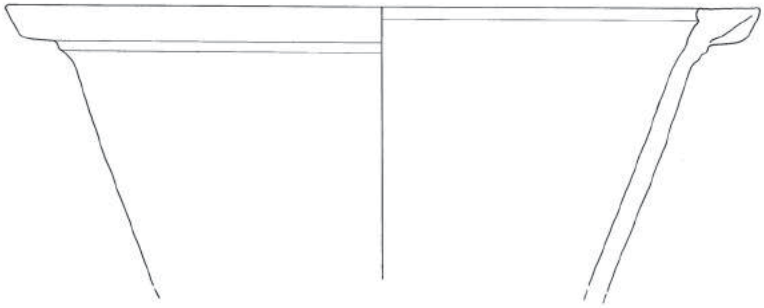
NUMBERS 1141–1142 SITE 40. 31/405-L10-2 FILL OF STRUCTURE

1141. //
Rd. c. 16.0
A1a? Dc1 (ext.)
Black bands.

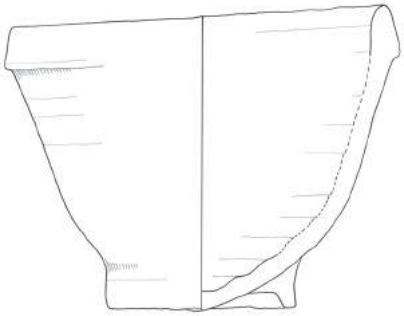


1142.
Rd. 18.2 Bd. 8.5–8.9
Ht. 15.5–17.1
A1a Sr1 (ext./rim)
Burnt ext.
PLATE E.32

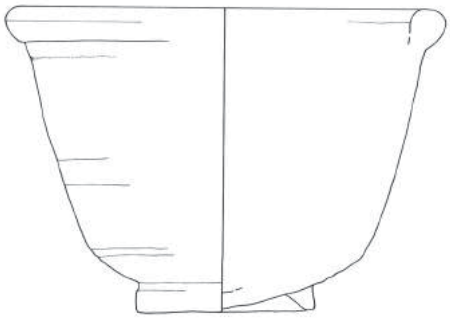
NUMBERS 1143–1148 SITE 41. 31/405-L10-3 SURFACE



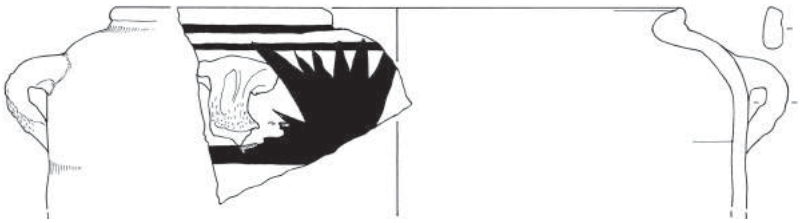
1143. //
Rd. 38.0
A1a P1a



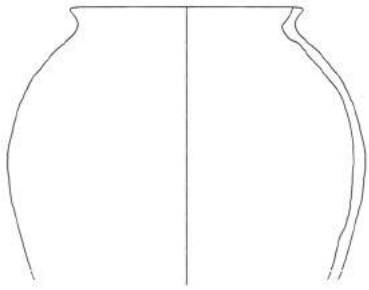
1144. //
Rd. 20.0
A1a P1a
Rim preserved.



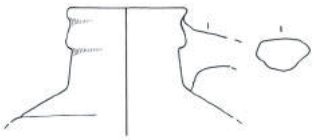
1145. //
Rd. 30.0
A1a P1a
Rim preserved.



1146.
Rd. 30.0 Pht. 10.0
A1a Dc1 (ext.)
Black bands and floral dec.
One handle preserved.



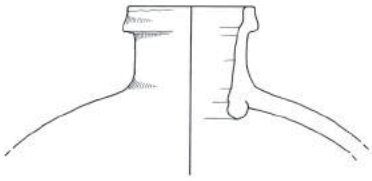
1147.
Rd. 12.0
A2a (sandy) Sr2



1148. //
Rd. 6.0
A1a Sc1 (ext.)

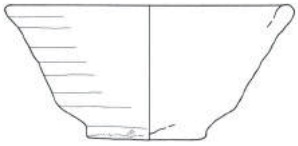
NUMBERS 1149–1150 SITE 42. 30/405-M1-1 SURFACE

1149. //
Rd. c. 20.0
A1a P1a
Rim preserved.

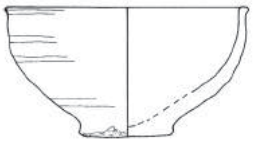


1150.
Rd. 6.8 Nht. 4.0
A1b P1b

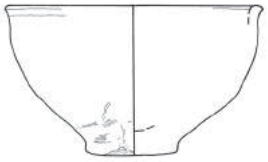
NUMBERS 1151–1154 SITE 42. 30/405-M1-1 TOMB 1 (PAGE 1 OF 2)



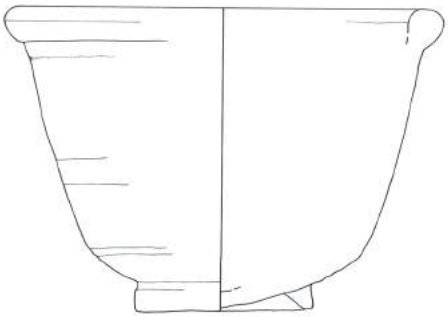
1151. //
Rd. 14.3–14.6 Bd. 5.4
Ht. 7.7–8.5
A1a Sc1 (ext.)
Black resinous int. and stained brown ext. UB.
PLATE E.33



1152. (Reg. 1/02)
Rd. 12.5–13.0 Bd. 4.5
Ht. 6.5–7.4
A1a P1a
Black stained rim int. and part ext.
PLATE E.33



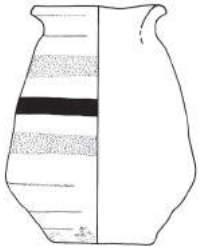
1153.
Rd. 12.8–13.6 Bd. 4.6
Ht. 7.6–8.1
A1a Sc1 (int./ext.)
Black resinous coating int. and part ext.
PLATE E.33



1154. (Reg. 1/05)
Rd. 22.8–23.0 Bd. 9.2 Ht. 15.6–16.5
A1a Dc1 (int./ext.)
Red rim band.
Stained brown int.
PLATE E.33 & E.34

NUMBERS 1155–1161 SITE 42. 30/405-M1-1 TOMB 1 (PAGE 2 OF 2)

1155. (Reg. 1/04)
Rd. 5.6–5.8 Bd. 4.3–4.4
Ht. 8.2–8.6
A1a Dc1 (int./ext.)
Red and black dec. Small piece of palm rope inside.
PLATES E.33 & E.35

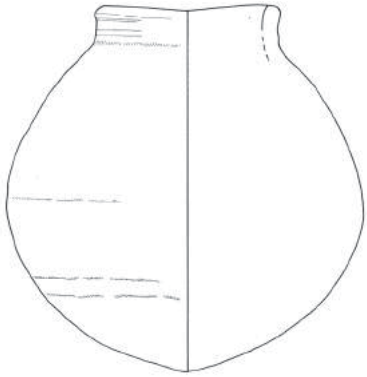


1156. (Reg. 1/07)
Rd. 7.0 Bd. 5.4
Ht. 12.6–12.8
A1a Dc1 (ext./rim)
Black and red bands.
Blackened int.
PLATES E.33 & E.36

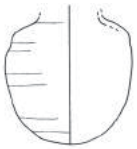
1157. (Reg. 1/09)
Rd. 6.2–6.4 Bd. 4.8
Ht. 12.2
A1a Dc1? (ext.)
Black bands, red bars, red rim.
PLATES E.33 & E.36

1158. (Reg. 1/03)
Rd. 7.3 Bd. 6.0–6.2
Ht. 12.8
A1a Dc1 (ext./rim)
Red and black bands. Black resinous substance int. and over break.
Linen encased mud-stopper.
PLATES E.33 & E.36

1159. (Reg. 1/06)
Rd. 5.1 Ht. 12.0
MaxD. 7.6
A1a P1a
Black shiny deposit int. and ext. sheen (oily stain?).
PLATES E.33 & E.37

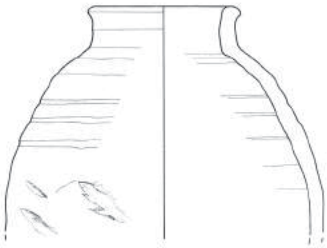


1160. (Reg. 1/10)
Rd. 9.7 Ht. 19.5 MaxD. 19.0
A1a P1a
Blackened ext.
Stained int.
PLATE E.38

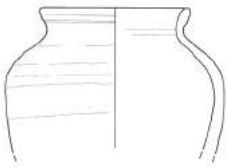


1161. (Reg. 1/11)
MaxD. 6.2 Pht. 7.0
A1a Srb1 (ext.)
PLATES E.33 & E.39

NUMBERS 1162–1164 SITE 43. 31/405-M9-1 SURFACE



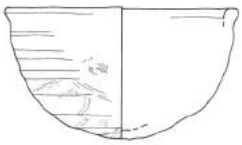
1162. //
Rd. c. 8.0
A1b P1b



1163. //
Rd. c. 8.0
A1b Sc2 (ext.)

1164. //
Rd. c. 12.0
A1b P1b

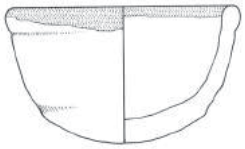
NUMBERS 1165–1166 SITE 43. 31/405-M9-1 HOUSE 1



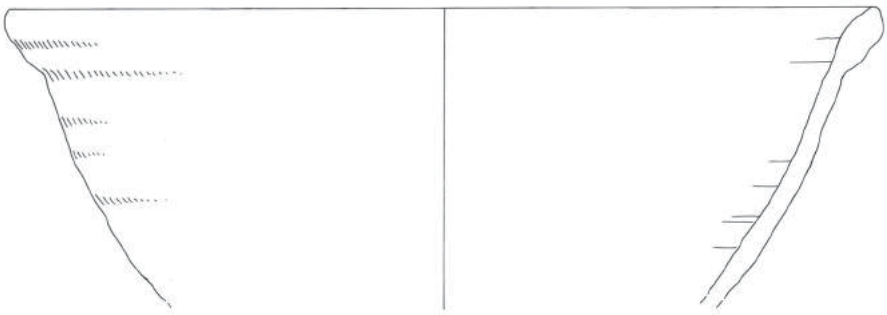
1165. //
Rd. 12.1 Ht. 6.7
A1a Sc1 (ext.)
Complete.

1166. //
Rd. c. 40.0
Fabric unknown.

NUMBERS 1167–1168 SITE 43. 31/405-M9-1 AREA 3 (TEMPLE) (PAGE 1 OF 2)



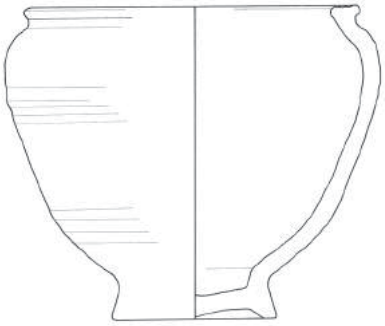
1167.
Rd. 12.5 Ht. 7.2
A1a Dc1 (int./ext.)
Red rim.



1168.
Rd. 46.0 Pht. 16.0
Fabric unknown.

NUMBERS 1169–1180 SITE 43. 31/405-M9-1 AREA 3 (TEMPLE) (PAGE 2 OF 2)

1169. //
Rd. c. 40.0
A1a Dp1
Red rim band.

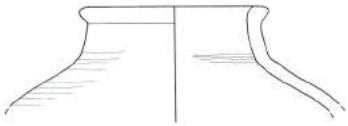


1170. //
Rd. c. 16.0
A1a Sc1 (ext.)
Rim-UB preserved.

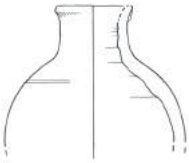
1171.
Rd. 14.0 Pht. 6.0
Fabric unknown.

1172.
Rd. 12.0 Pht. 8.0
Fabric unknown.

1173. //
Rd. c. 10.0
A1a Sc1 (ext.)

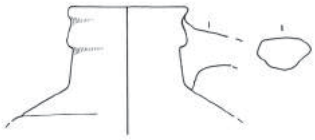


1174. //
Rd. c. 10.0
A1a Sc1 (ext.)

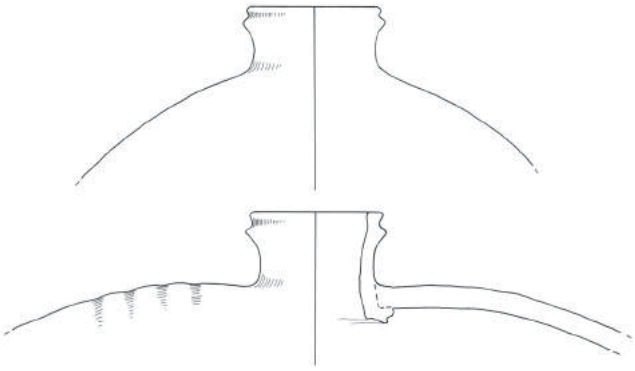


1175.
Rd. 4.0 Pht. 8.0
Fabric unknown.

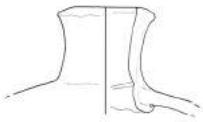
1176.
Rd. 3.6 Pht. 3.0
Fabric unknown.
Part handle preserved.



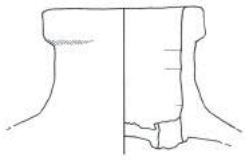
1177. //
Rd. c. 6.0
A1a P1a



1178.
Rd. 7.2 Nht. 4.0
A1a P1a

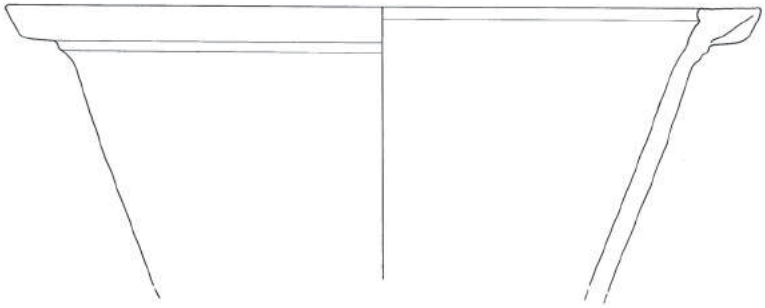


1179. //
Rd. c. 4.0
A1a Sc1 (ext.)

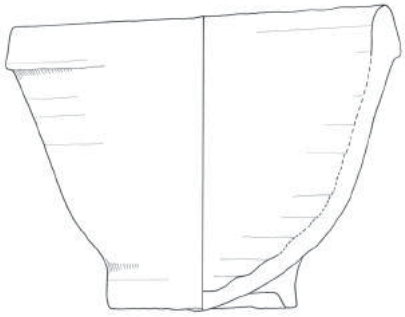


1180.
Rd. 8.4 Nht. 6.0
Fabric unknown.
Strainer in neck.

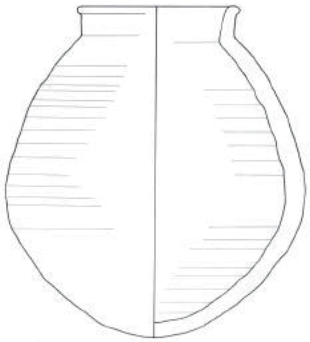
NUMBERS 1181–1184 SITE 44. 31/405-L4-1 BUILDING 2, SURFACE



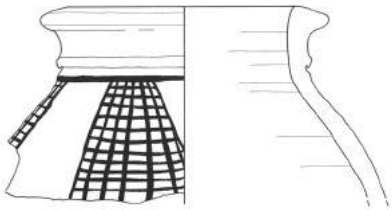
1181. //
Rd. 40.0
A1a Sc1 (int./ext.)



1182. //
Rd. 20.0
A1a/A28 P1a/P37
Rim preserved.

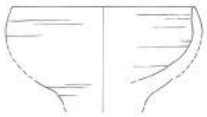


1183. //
Rd. 8.0
B3 Sr8 (ext./rim)
Rim-UB preserved.

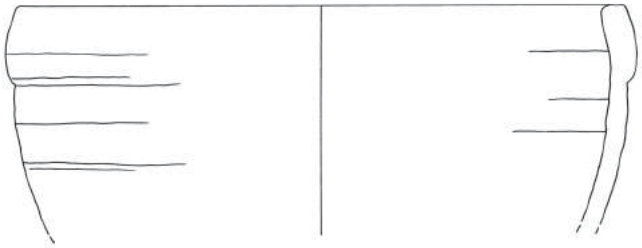


1184. //
Rd. 16.0
A1a Dc1 (ext.)
Black dec.

NUMBERS 1185–1200 SITE 45. 31/405-L4-2 SURFACE



1185.
Rd. 9.5
A1a P1a
Eroded ext.

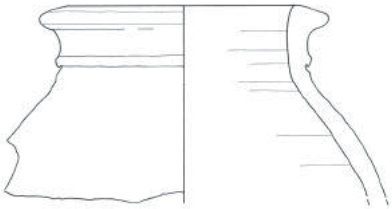


1186. //
Rd. c. 36.0
A1a Sc1 (int./ext.)

1187.
Rd. 20.0
A1a P1a/Sc1? (ext.)

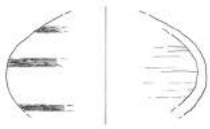
1188.
Rd. 14.5
A1a P1a

1189.
Rd. 13.0
A1a/A31 Sc1/Sc18
(ext./rim)

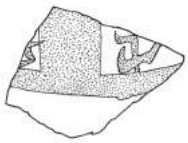


1190. //
Rd. 14.0
A1a Sc1 (ext.)

1191.
Rd. 9.5
B3 P9
Darkened ext.



1192.
Max.D. 10.5
B3 Drp (ext.)
Black bands.

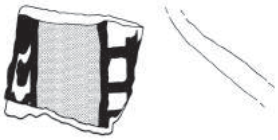


1193.
B/S
A1a Dp1
Red dec.

1194.
B/S
A5 Dc11 (ext.)
Black dec.

1195.
B/S
A1a Dc1 (ext.)
Red and black dec.

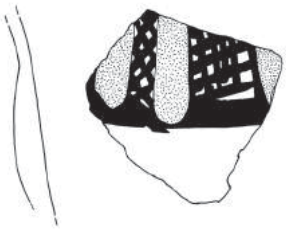
1196.
B/S
A1a Dc1 (ext.)
Black and red dec.



1197.
B/S
A1a Dc1 (ext.)
Red and black dec.

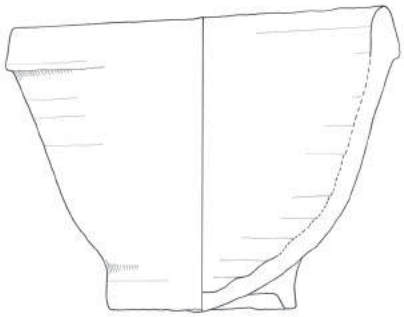
1198.
B/S
A1a Dc1 (ext.)
Black dec.

1199.
B/S
A1a Dc1 (ext.)
Black and red dec.



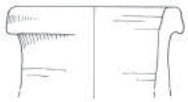
1200.
B/S
A1a Dc1 (ext.)
Black and red dec.

NUMBERS 1201–1204 SITE 46. 31/405-M4-1 SURFACE

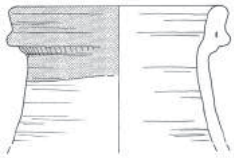


1201. //
Rd. c. 20.0
A1a Sc1 (int./ext.)
Rim preserved.

1202.
Rd. 10.0
A2a (Hard) P1a

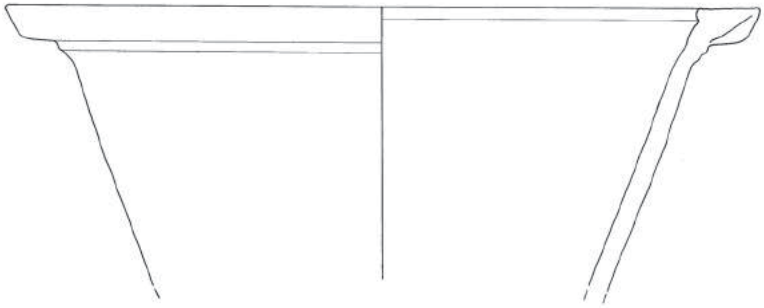


1203.
Rd. 9.0
A1b Sc2?
(ext./rim)

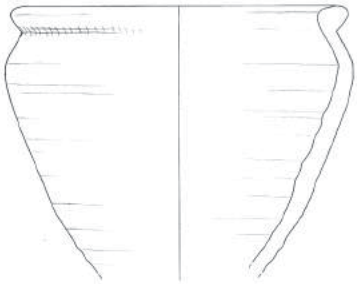


1204.
Rd. 11.5
A1a Dc1 (ext.)
Red rim band.

NUMBERS 1205–1208 SITE 46. 31/405-M4-1 TOMB 1, FILL

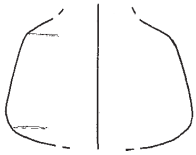


1205. //
Rd. 36.0
A1b P1b



1206. //
Rd.19.0
A1a Sc1

1207. //
Rd. 12.0
A1a Sc1



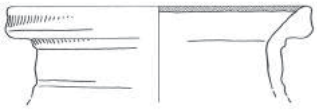
1208. //
MaxD. 10.0
A11/B17
Sr7 (ext.)

NUMBERS 1209–1210 SITE 47. 31/405-N3-1 TEST 1, UPPER FILL

1209.
Rd. 9.0
A1a Sc1 (ext.)

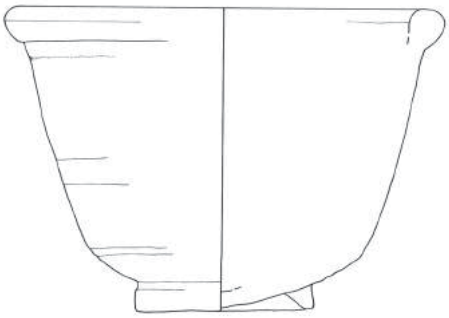
1210.
Rd. 12.0
A1b P1b

NUMBER 1211 SITE 47. 31/405-N3-1 TEST 1, LOWER FILL



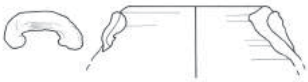
1211.
Rd. 16.0
A1a Dc1 (ext.)
Red rim.

NUMBERS 1212–1215 SITE 48. 31/420-B9-1 SURFACE



1212. //
Rd. 30.0
A1a Sc1 (int./ext.)
Rim preserved.

1215. //
Rd. 12.0
A1b Sc2 (ext.)



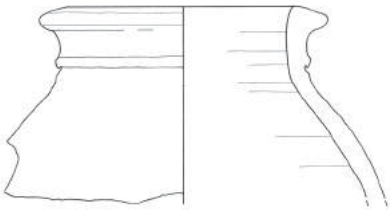
1213. //
Rd. 10.0
A1a P1a

1214. //
Rd. 12.0
B3 P9

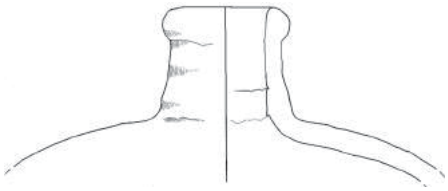
NUMBERS 1216–1220 SITE 49. 31/420-C9-1 SURFACE

1216. //
Rd. 18.0
A1a Sc1

1217. //
Rd. 24.0
A1a Sc1



1218. //
Rd. c. 12.0
A1a Dc1 (ext.)
Red rim band.

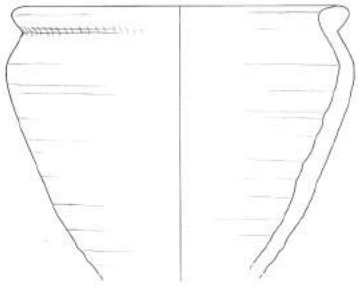


1219. //
Rd. 6.0 Nht. 7.0
A1b P1b

1220. //
Bd. 16.0
A1a Sc1
Base preserved.

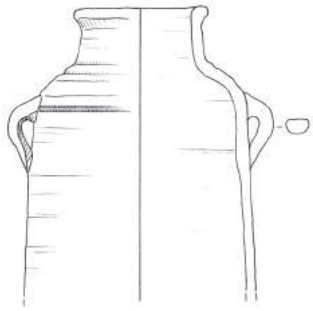
NUMBERS 1221–1224 SITE 50. 31/420-B10-1 (BEIT EL-QARESH) SURFACE

1221.
Rd. 11.0
A1a P1a



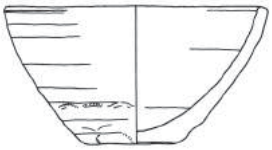
1222.
Rd. 18.0
A1a P1a

1223.
Rd. 14.0
A1a Dc1 (ext.)
Black and red dec.

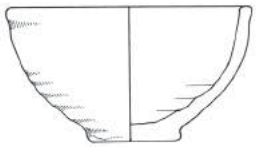


1224.
Rd. 7.0
A1a Sr1 (ext.)

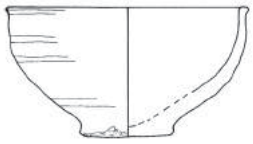
NUMBERS 1225–1231 SITE 51. 31/420-D10-1 TEST 1



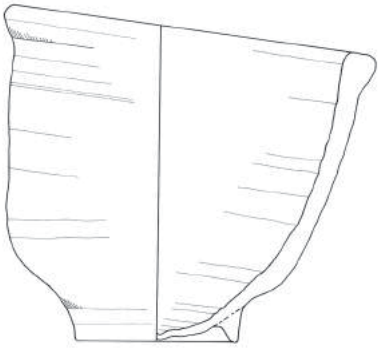
1225. //
Rd. 13.4 Bd. 4.9
Ht. 7.4
A1a P1a
Complete.



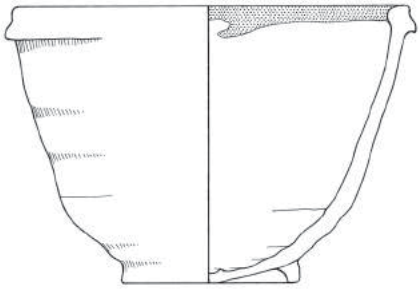
1226.
Rd. 13.0 Bd. 4.7-5.0
Ht. 7.0
A1a Sc1 (ext./int.)
Complete.
PLATE E.40



1227. //
Rd. 14.0 Bd. 5.3
Ht. 7.4
A1a Sc1 (int./rim)
Stained brown int.
Complete.



1228. //
Rd. 22.0
A1a Dc1 (int./ext.)
Red rim.
Rim preserved.



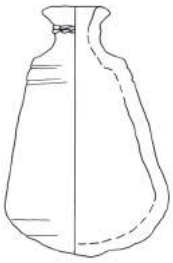
1229.
Rd. c. 22.0 Bd. 9.4 Ht. 14.2
A1a Dc1? (ext./int.)
Red rim.
Complete.

1230. //
Rd. c. 8.0
A1a Dr1 (ext./int.)
Cream rim band.
Rim-UB-spout preserved.

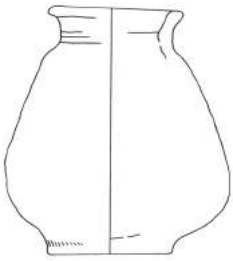
1231. //
Rd. 13.0
A1a Dc1 (ext.)
Red rim band.

NUMBERS 1232–1235 SITE 52. 31/420-C5-1 (KELLIS WEST CEMETERY) TOMB 13

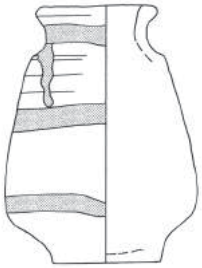
1232.
Rd. 13.0 Bd. 5.2 Ht. 5.0
A1a P1a



1233.
Rd. 3.6 Ht. 13.2
MaxD. 8.8
A1a Sr1 (ext.)
Cord tied around neck.
Linen encased mud seal.



1234.
Rd. 7.2 Bd. 6.8
Ht. 12.8 MaxD. 12.0
A1a P1a?
Coated with black
resinous substance ext.



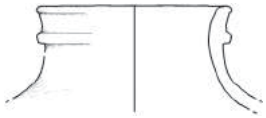
1235.
Rd. 6.4 Bd. 5.6 Ht. 13.6
MaxD. 10.0
A1a Dc1 (ext.)
Red bands.
Linen encased mud seal.

NUMBERS 1236–1240 SITE 53. 31/420-D6-1 (ISMANT EL-KHARAB) AREA C/2/4, S-W CORNER

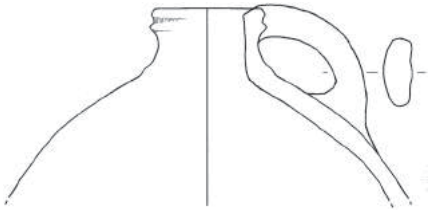
1236.
Rd. 38.0 Pht. 11.0
A28 P37

1237.
Rd. 40.0 Pht. 11.0
A1a P1a

1238.
Rd. 9.0 Pht. 4.0
A1a P1a
Blackened ext.



1239.
Rd. 10.0 Pht. 6.0
A1a P1a



1240.
Rd. 6.0 Pht. 10.0 Nht. 3.0
A2a Sc2
1 handle preserved.

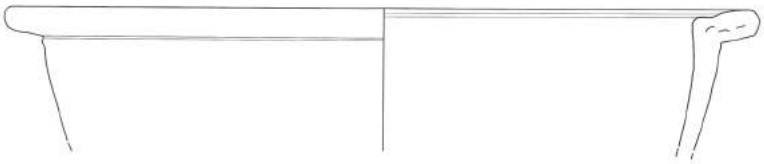
NUMBERS 1241–1242 SITE 53. 31/420-D6-1 (ISMANT EL-KHARAB) AREA C/2/5, CONTEXT 5

1241.
Rd. 14.0 Pht. 4.0
A1a/A2a Pol.1/2

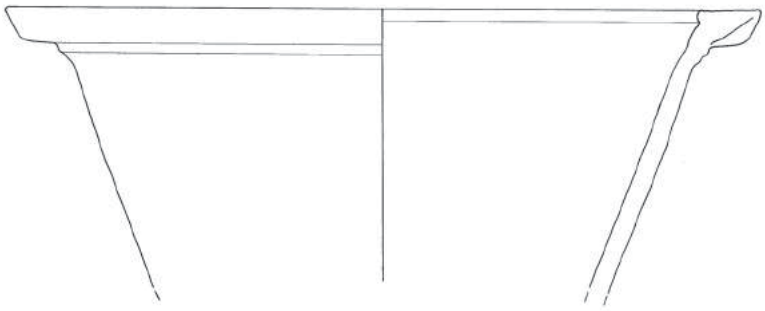
1242.
Rd. 14.0 Pht. 6.0
A1a/A2a Pol.1/2

NUMBERS 1243–1248 SITE 54. 31/420-G6-4 SURFACE

1243. //
Rd. c. 20.0
A1b P1b



1244. //
Rd. 46.0
A1a Sm1
Red int., cream ext.



1245. //
Rd. c. 40.0
A1a Sr1 (int/ext.)

1246. //
Rd. 30.0
A1b P1b

1247. //
Rd. 12.0
A1a Dp1
Cream rim.

1248. //
Rd. c. 4.0
A1b P1b

NUMBERS 1249–1256 SITE 55. 31/420-G6-2 (QASR EL-HALEKA) SURFACE (PAGE 1 OF 2)

1249.
Rd. 22.0
A1a P1a

1250.
Rd. 20.0
A1a P1a

1251.
Rd. 32.0
A1a Sc1 (int./ext.)

1252.
Rd. 24.0
A1a Sc1 (int./ext.)

1253.
Rd. 22.0
A1b Sc2 (ext.)

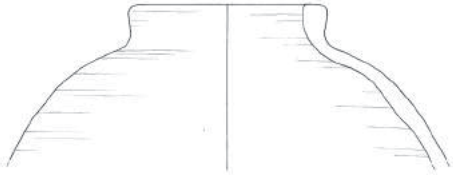
1254.
Rd. 34.0
A1a Dc1 (int./ext.)
Black bands.

1255.
Rd. 22.0
A1b Sc2 (int./ext.)

1256.
Rd. 24.0
A1a Sc1 (ext.)
One handle preserved.

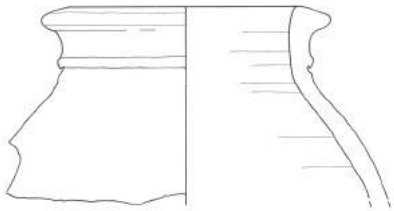
NUMBERS 1257–1264 SITE 55. 31/420-G6-2 (QASR EL-HALEKA) SURFACE (PAGE 2 OF 2)

1257.
Rd. 20.0
A1a Sc1 (ext./rim)



1258.
Rd. 10.0
A2a P2a

1259.
Rd. 12.0
A2a P2a
One handle preserved.

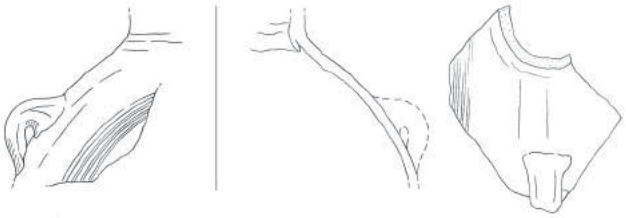


1260. //
Rd. 14.0
A1a Sc1 (ext.)

1261.
Rd. 14.0
A1a Sc1 (ext./rim)

1262.
Rd. 13.0
A31 Sc18 (ext./rim)

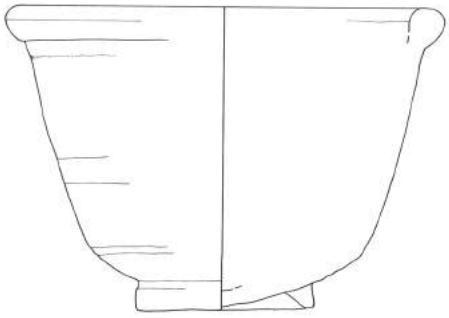
1263.
Rd. 12.0
A1a Sc1 (ext./ rim)



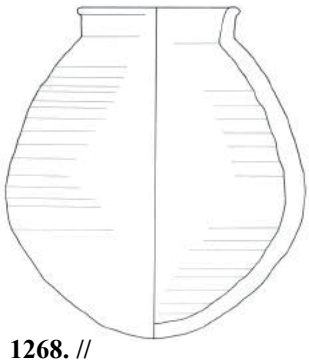
1264.
NeckD. 6.0
A1a P1a
One handle preserved.

NUMBERS 1265–1268 SITE 56. 31/420-H7-1 TOMB 1

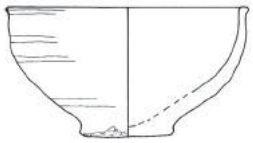
1265. //
Rd. 14.0
A1a P1a
Rim preserved.



1267. //
Rd. 28.0
A1a P1a
Rim preserved.

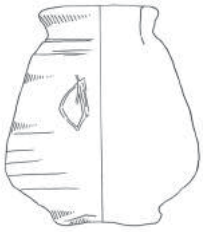


1268. //
Rd. 10.0
B3 Sr8 (ext.)
Rim-UB preserved.

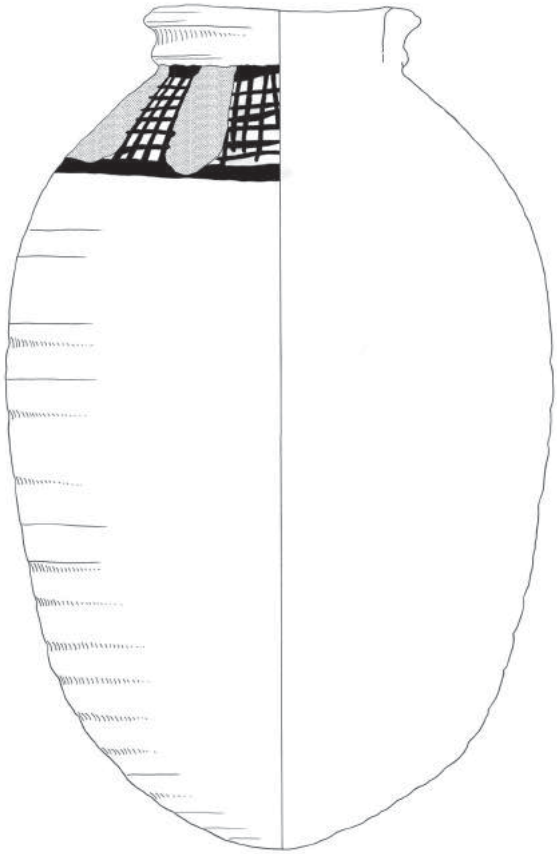


1266. // (Reg. 1/01)
Rd. 14.6 Ht. 8.0
A1a Sc1 (ext.)
Complete.
PLATE E.41

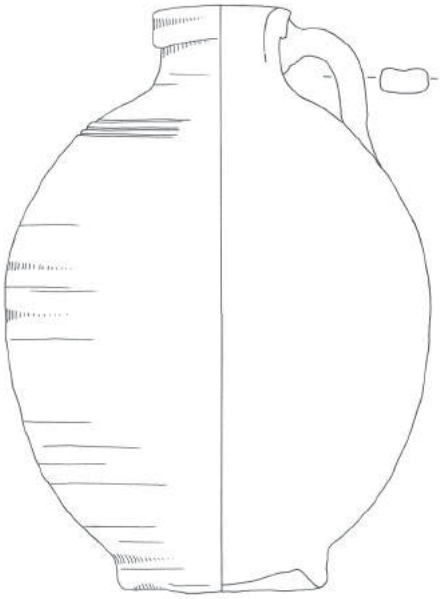
NUMBERS 1269–1271 SITE 56. 31/420-H7-1 OUTSIDE A TOMB (UNNUMBERED)



1269.
Rd. 6.0 Bd. 5.6 Ht. 11.6
A1a Sc1 (ext.)
Incised pot-mark.
PLATE E.42

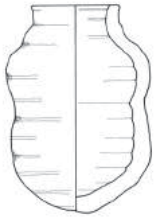


1270.
Rd. 14.0 Ht. 44.0 MaxD. 29.0
A1a Dc1 (ext.)
Red and black dec.
PLATE E.43

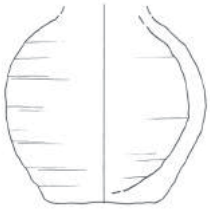


1271.
Rd. 7.2 Bd. 11.2 Ht. 30.8
MaxD. 22.5
A1a Sc1? (ext.)
PLATE E.44

NUMBERS 1272–1273 SITE 57. 31/435-D3-2 SURFACE

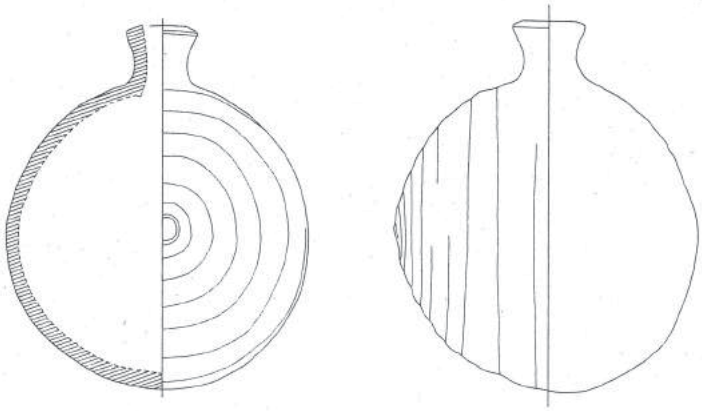


1272. //
Rd. 4.5
A1a Sc1 (ext.)
Rim-UB preserved.



1273.
Bd. 6.0 Pht. 10.0
A1a P1a

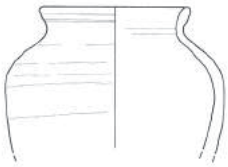
NUMBER 1274 SITE 58. 31/435-G2-1/2 (QILA ELDABBA) MASTABA II



1274.
Rd. 4.0 Ht. 19.5 MaxD. 16.5
Fabric Unknown.
(after Minault-Gout 1992: 202, Inv.849).

NUMBERS 1275–1276 SITE 59. 31/435-J4-2 SURFACE

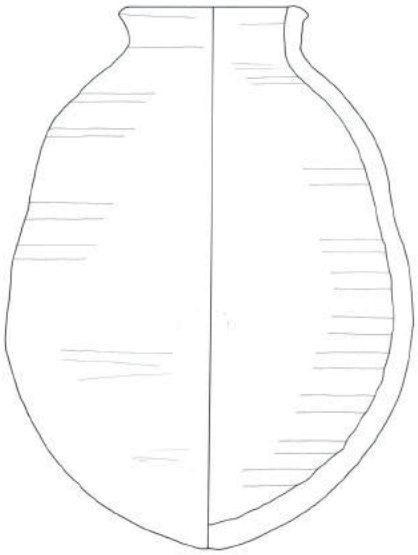
1275. //
Rd. 16.0
A1b P1b



1276. //
Rd. 14.0
A1b P1b

NUMBERS 1277–1278 SITE 60. 31/435-L2-5 SURFACE

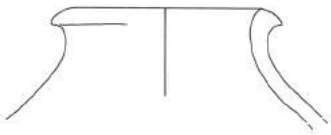
1277. //
Rd. 14.0
A1b P1b



1278. //
Rd. c.11.0
A1a P1a
Rim-UB preserved.

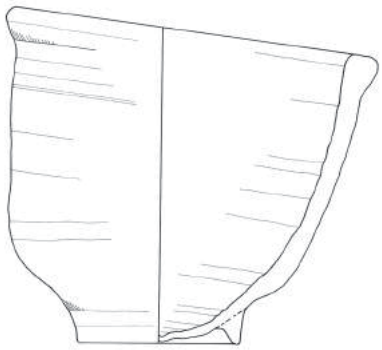
NUMBERS 1279–1280 SITE 60. 31/435-L2-5 SURFACE AROUND KILN

1279. //
Rd. 15.0
A1a P1a



1280. //
Rd. 15.0
A1a Sr1 (ext.)

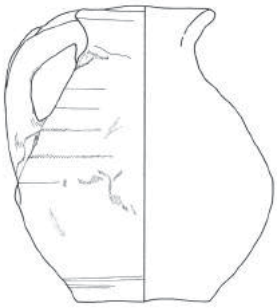
NUMBER 1281 SITE 61. 31/435-K3-1 WALL CLEARANCE AT FRONT OF TEMPLE



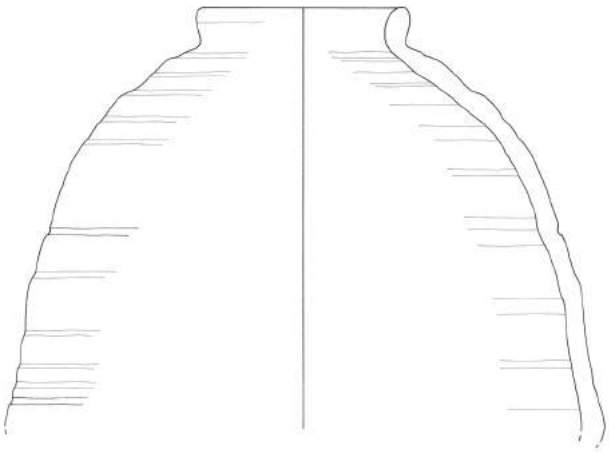
1281. //
Rd. 26.0
A1a P1a
Rim preserved.

NUMBERS 1282–1284 SITE 61. 31/435-K3-1 CLEARANCE AROUND STRUCTURE, WEST OF FORECOURT

1282. //
Rd. 36.0
A1a P1a

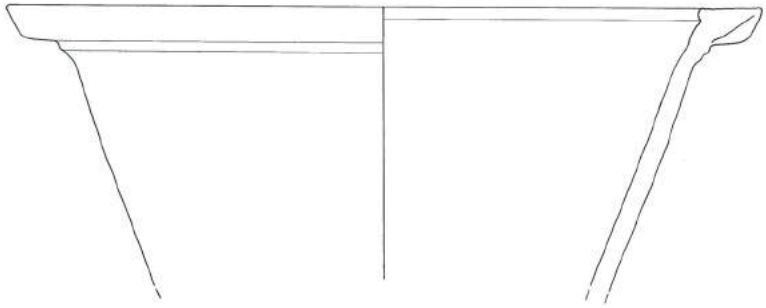


1283. //
Rd. 9.0
A1a P1a



1284. //
Rd. 16.0
A1a Sc1

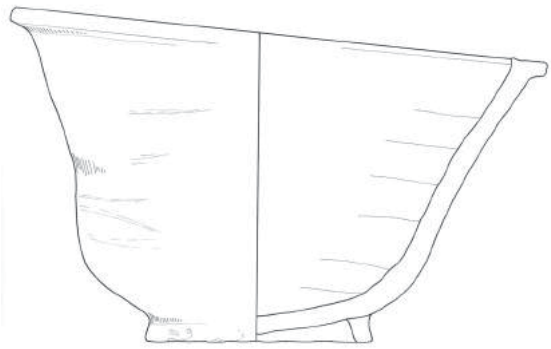
NUMBERS 1285–1286 SITE 62. 31/435-K3-2 SURFACE OF EAST MOUNDS



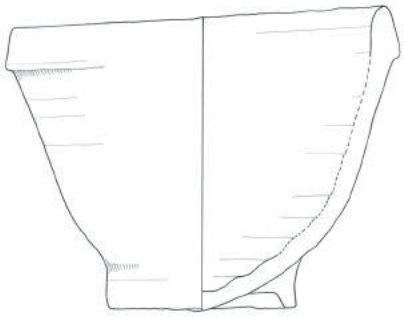
1285. //
Rd. c. 32.0
A1a Sr1 (int./ext.)

1286. //
Rd. 40.0
A1a Sc1 (int./ext.)

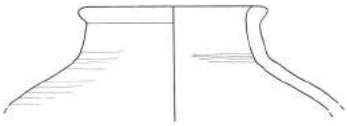
NUMBERS 1287–1292 SITE 63. 31/435-N3-1 SURFACE



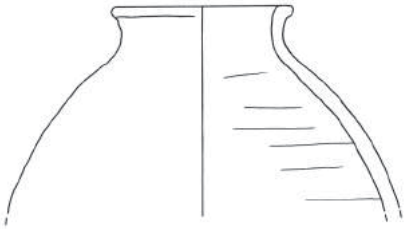
1287. //
Rd. 36.0
A1a Sc1 (int./ext.)
Rim preserved.



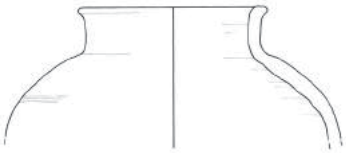
1288. //
Rd. 29.0
A1a Sc1 (int./ext.)
Rim preserved.



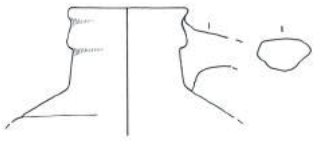
1289. //
Rd. 9.0
B3 Sr8 (ext.)
Two examples.



1290. //
Rd. 9.0
A1a Sr1 (rim/ext.)
Two examples.

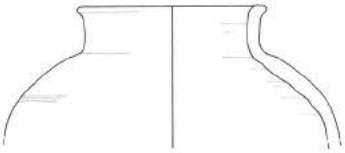


1291. //
Rd. 10.0
A1a P1a
Two examples.

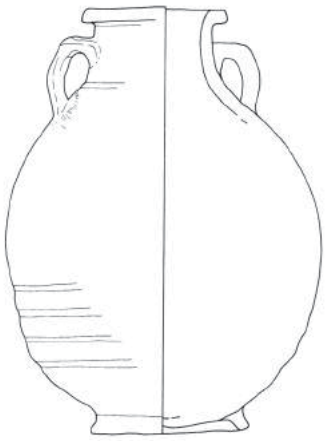


1292. //
Rd. 7.0
A1a Sc1 (ext.)
Two examples.

NUMBERS 1293–1294 SITE 64. 31/435-P3-1 SURFACE

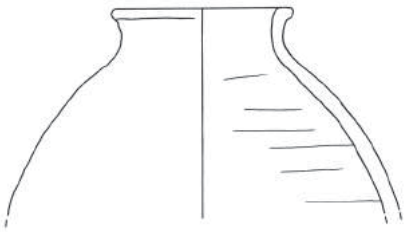


1293. //
Rd. 12.0
A1a P1a



1294. //
Rd. 8.0
A1a Sr1 (int. rim/ext.)
Rim-UB-handle preserved.

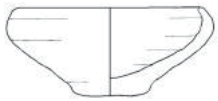
NUMBERS 1295–1296 SITE 65. 31/435-M4-1 ROOMS 4 AND 5, FILL



1295. //
Rd. 10.0
A1b P1b

1296. //
Rd. 11.0
A2b P2b

NUMBERS 1297–1299 SITE 65. 31/435-M4-1 ROOM 3, FILL



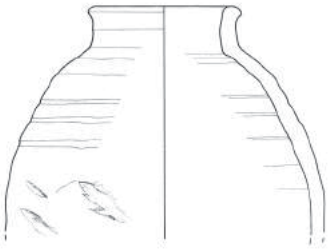
1297. //
Rd. 12.0
A2b P2b
Rim-body
preserved.

1298. //
Rd. 37.0
A1a Sc1 (ext./int.)
Grooves below ext. rim.

1299. //
Rd. 11.0
A1b P1b
Rim-UB preserved.

NUMBERS 1300–1301 SITE 66. 31/435-L4-1 STRUCTURE, FILL

1300. //
Rd. 14.0
A1a P1a

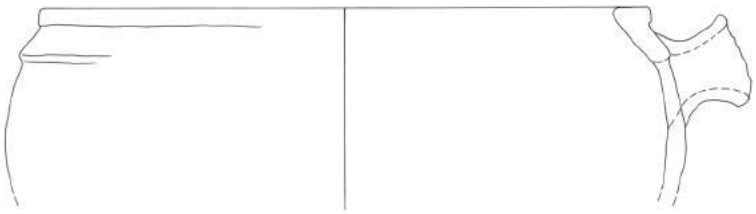


1301. //
Rd. 8.0
A1b P1b

NUMBERS 1302–1304 SITE 67. 31/435-K5-3 SURFACE

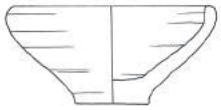
1302. //
Rd. 12.0 Bd. 4.5
Ht. 5.7
A1a P1a

1303. //
Rd. c. 40.0
A1a P1a



1304.
Rd. 32.0 Pht. 10.0
A1a Sc1 (ext.)

NUMBERS 1305–1306 SITE 68. 31/435-K5-2 SURFACE

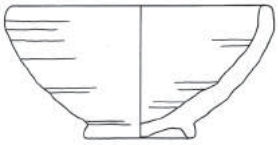


1305. //
Rd. 12
A1a P1a

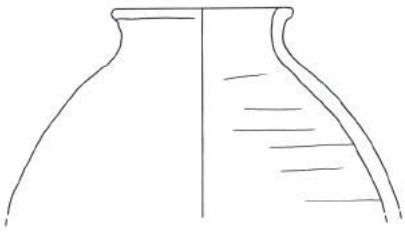
1306. //
Rd. 14.0
A1a P1a

NUMBERS 1307–1311 SITE 69. 31/435-K5-1 (AIN BIRBIYEH) GATEWAY, LOWER FILL

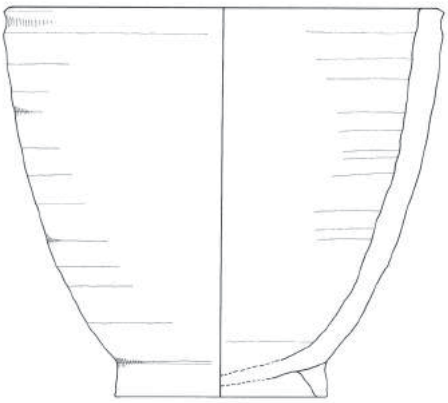
1307. //
Rd. 10.0
A1a P1a
Rim preserved.



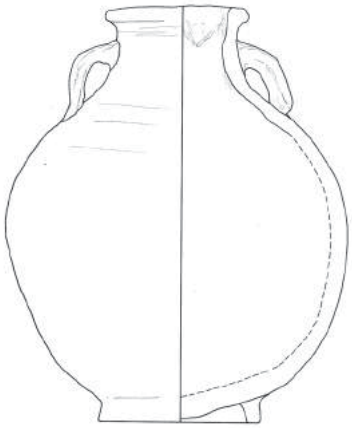
1308. //
Rd. 14.0
A1a P1a
Rim preserved.



1309. //
Rd. 14.0
A1a P1a/ Sr1? (ext.)
Possible red slip.



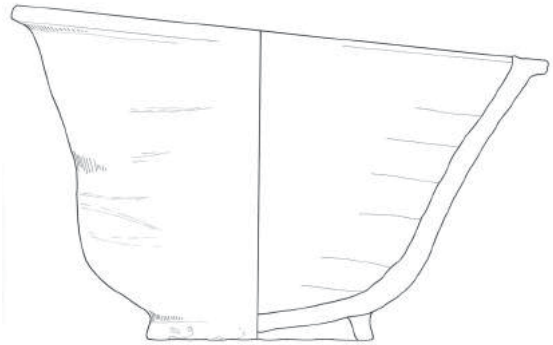
1310. //
Rd. 26.0
A1a P1a
Rim preserved.



1311. //
Rd. 8.0
A1a Sc1 (ext.)
Rim-UB-handles preserved.

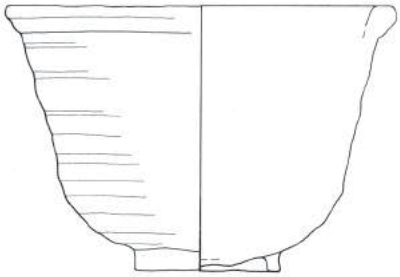
NUMBERS 1312–1313 SITE 69. 31/435-K5-1 (AIN BIRBIYEH) GATEWAY, UPPER FILL (PAGE 1 OF 3)

1312. //
Rd. 12.0
A1a P1a
Rim preserved.

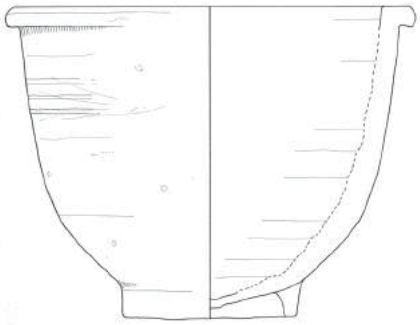


1313. //
Rd. c. 28.0
A1a Dp1
Cream rim.
Rim preserved.

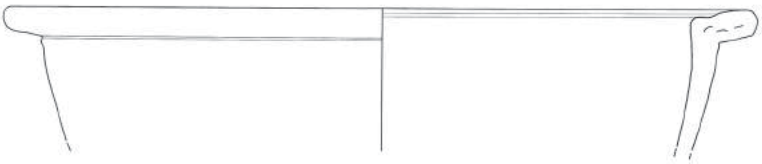
NUMBERS 1314–1319 SITE 69. 31/435-K5-1 (AIN BIRBIYEH) GATEWAY, UPPER FILL (PAGE 2 OF 3)



1314. //
Rd. 24.0
A1a P1a
Rim preserved.

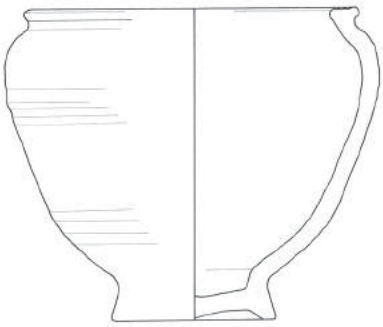


1315. //
Rd. 21.0
A1b Sc2 (int./ext.)
Rim preserved.



1316. //
Rd. 40.0
A2a Sc3 (int./ext.)
Perforation below rim.

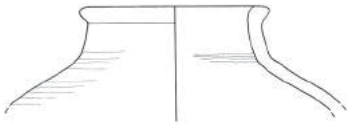
1317. //
Rd. 34.0
A1a Sr1 (ext.)



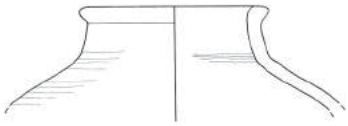
1318. //
Rd. 18.0
A1a Sc1 (ext.)
Rim preserved.

1319. //
Rd. 36.0
A1a P1a

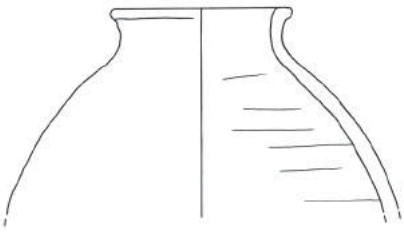
NUMBERS 1320–1332 SITE 69. 31/435-K5-1 (AIN BIRBIYEH) GATEWAY, UPPER FILL (PAGE 3 OF 3)



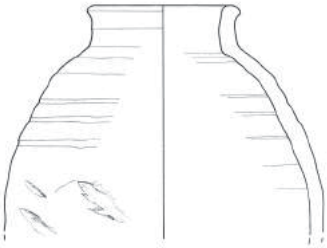
1320. //
Rd. 10.0
A1a Sc1 (ext.)



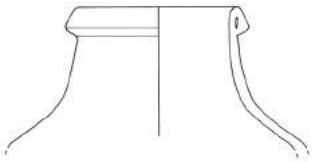
1321. //
Rd. 12.0
A1b P1b



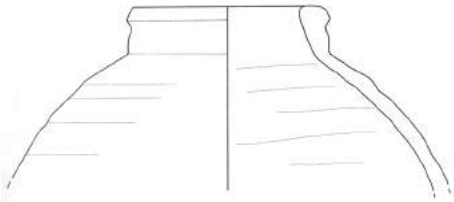
1322. //
Rd. 11.0
A1b P1b



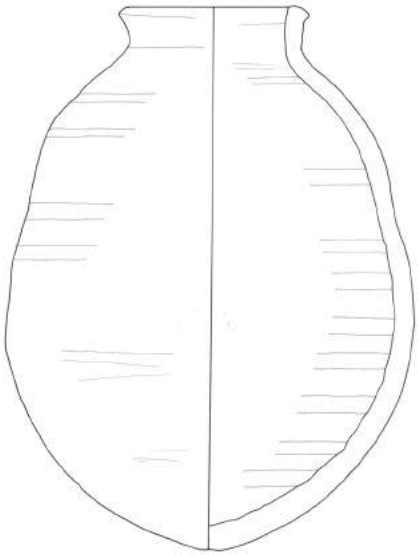
1323. //
Rd. 8.0
A2a P2a



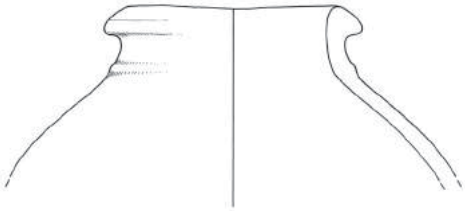
1324. //
Rd. 8.0
A1a P1a



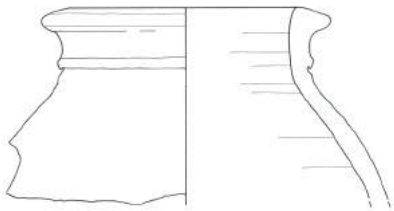
1325. //
Rd. 10.0
A1a Sc1 (ext.)



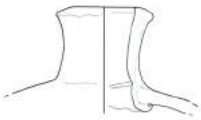
1326. //
Rd. 10.0
A1a P1a
Rim-UB preserved.



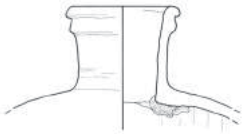
1327. //
Rd. 10.0
A1a P1a



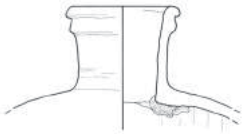
1328. //
Rd. 14.0
A1b Sc2 (ext.)



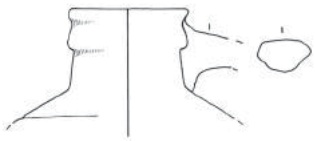
1329. //
Rd. 6.0
A1b P1b



1330. //
Rd. 5.0
A1b Sc2 (ext.)

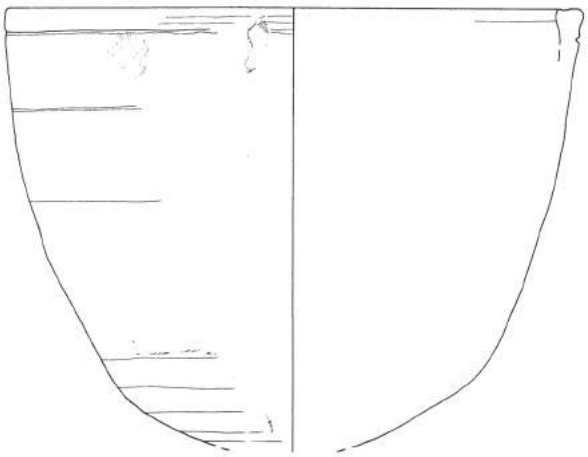


1331. //
Rd. 6.0
A1a P1a



1332. //
Rd. 7.0
A1a Sr1 (ext.)

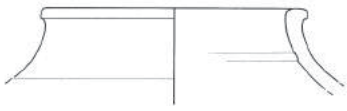
NUMBERS 1333–1340 SITE 70. 31/435-L6-1 SURFACE



1333. //
Rd. 38.0
A1a P1a

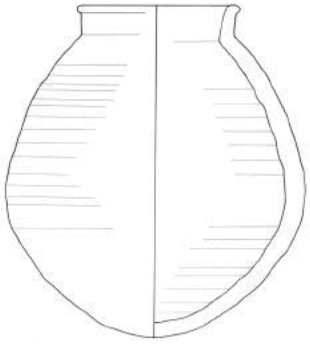
1334. //
Rd. 39.0
A1a P1a
Rim-UB preserved.

1335. //
Rd. 21.0
A1b P1b

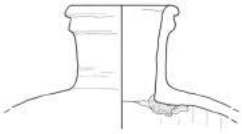


1336. //
Rd. 14.0
A1a P1a

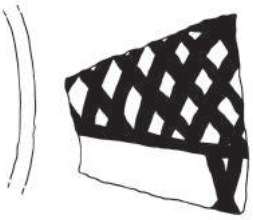
1338.
Rd. 8.0 Pht. 5.0
A1a P1a



1337. //
Rd. 9.0
A1a P1a
Rim-UB preserved.



1339. //
Rd. 6.0 Nht. 3.5
A1a P1a



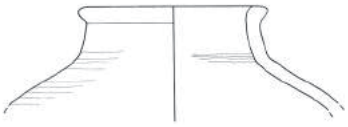
1340.
B/S
A1a Dc1 (ext.)
Black lattice dec.

NUMBERS 1341–1342 SITE 71. 31/435-N6-2 SURFACE

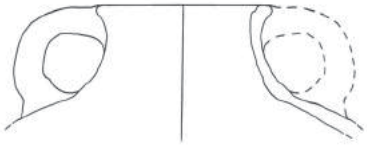
1341. //
Rd. 13.0 Bd. 4.0
A1a Sr1 (int./ext.)

1342. //
Rd. 12.0
A1a P1a

NUMBERS 1343–1344 SITE 71. 31/435-N6-2 TEST AROUND TEMPLE 1

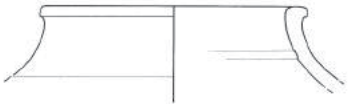


1343. //
Rd. 11.0
A1a P1a
Blackened ext.



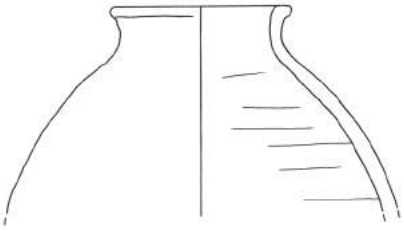
1344. //
Rd. 9.0
A1a Sc1

NUMBER 1345 SITE 71. 31/435-N6-2 TEMPLE 1A, ROOM 2



1345. //
Rd. 15.0
A1a Sc1 (ext.)

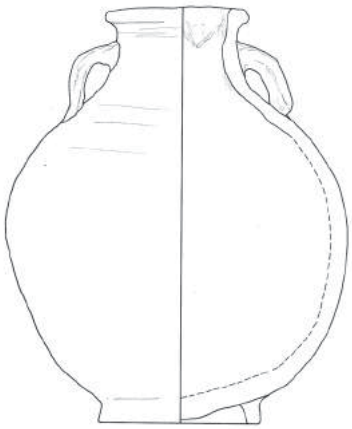
NUMBERS 1346–1347 SITE 71. 31/435-N6-2/ TEMPLE 1B, WALL CLEARANCE



1346. //
Rd. 13.0
A1a Sc1 (ext.)
Dark brown blobs int./ext.

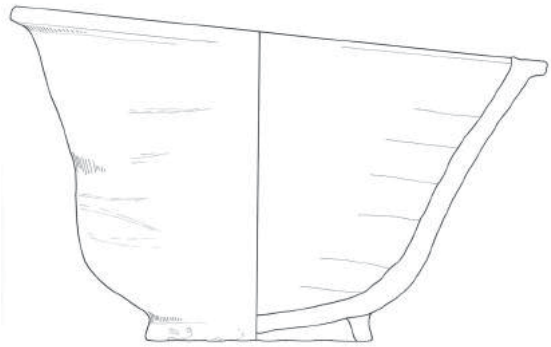
1347. //
Rd. 13.0
A1a P1a

NUMBER 1348 SITE 72. 30/435-K1-5 TEMPLE, FILL



1348. //
B/S
Fabric unknown.
Handle-UB preserved.

NUMBER 1349 SITE 72. 30/435-K1-5 UNDER SANCTUARY FLOOR



1349. //
Rd. 30.0
A1a P1a
Rim preserved.

APPENDIX 6

CATALOGUE OF PTOLEMAIC SITES IN THE WESTERN OASES

KHARGA OASIS — *Page*

K01 Umm el-Dabadib …….. 394
K02 ‘Ain el-Labakha …… 394
K03 El-Deir ……. 397
K04 ‘Ain el-Dabashiya …… 398
K05 Gebel el-Teir …… 400
K06 El-Hibis …… 400
K07 Qasr el-Ghueita …… 403
K08 KS010 …….. 404
K09 ‘Ain Manawir …….. 405
K10 Dush ……. 405
K11 ‘Ain Ziyada ……. 407
K12 KS005 …….. 408
K13 KS008 …….. 408
K14 KS009 …….. 408

BAHARIYA OASIS

B01 El-Tebanieh ……. 409
B02 Qasr el-Megysba …….. 409
B03 Valley of the Golden Mummies …….. 411
B04 El-Ayoun …….. 411
B05 Qasr ‘Allam …….. 412
B06 Qaret el-Toub ……... 412
B07 El-Bawiti (Bes Temple) ……... 412
B08 ‘Ain el-Bishmu ……. 414
B09 Qaret el-Faragi ……. 414
B10 Temple of Herakles-Khonsu/ Amun … 415
B11 El-Gazayer ……... 415
B12 Kom Abdel-Karim …….. 415

SIWA OASIS — *Page*

S01 Meshendid ……. 416
S02 Gebel al-Mawta ……. 416
S03 Aghurmi ……. 417
S04 Gebel al-Dakrur ……. 418
S05 ‘Ain Qurayshat …….. 418
S06 Qasr al-Gashsham ……. 418
S07 Abu Shuruf …… 419
S08 El-Zeitun …… 419
S09 Abul-Awwaf …….. 420

MINOR OASES AND ISOLATED SITES

M01 Jaghbub …….. 422
M02 El-Areg …….. 422
M03 Bahrein …….. 423
M04 Nuwemisah …… 424
M05 Abu Gerara …… 424
M06 ‘Ain Amur ……. 424

DAKHLEH OASIS

(See APPENDIX 4)

Note: The following sources provide general information about many of the sites in the catalogue, but are not included in the bibliography for each entry: Arnold 1999; Aufrère *et al.* 1994; Bagnall and Rathbone 2004; Cruz-Uribe 1999; Porter and Moss 1952; Willeitner 2003.

KHARGA OASIS

K01. Umm el-Dabadib

LOCATION

The site is located in the northern part of Kharga, in the foothills of the northern escarpment, approximately 12 km west of ‘Ain el-Labakha (K02) (FIGURE 5.2).

DESCRIPTION

This is a large site comprising a settlement, a temple, a number of cemeteries, and a large mud-brick fort of Late Roman date (FIGURE A6.1). The temple is oriented east-west and is built of plastered mud-brick with a limestone entrance; three distinct building phases are apparent (Rossi and Ikram 2006: 293). To the south and associated with the temple is an oval depression surrounded by mounds of silt and mud-brick rubble that has been identified as a well. Some of the pottery from the well is perhaps of Ptolemaic date (cf. below). Whilst most of the visible remains appear to be of Roman date, there is some evidence for pre-Roman, possibly Ptolemaic activity at this site (Rossi and Ikram 2006: 281, 283).

Cemetery B comprises at least three rock-cut tombs in a sandstone outcrop. One of these consists of a burial chamber with a shaft at the west end, a layout which is typical of the Late Period or Early Ptolemaic Period (Ikram in Rossi and Ikram 2006: 296). Some of the pottery found in this cemetery may also point to a Ptolemaic phase of use (cf. below).

POTTERY

The pottery from the temple well is very different from the main settlement and is dominated by a series of jars with a distinct modelled rim (perhaps comparable to Forms 64–65). These vessels are possibly Ptolemaic in date, although direct parallels have not yet been identified (Gascoigne in Rossi and Ikram 2006: 300).

The pottery collected from various tombs in Cemeteries A, B, D and F includes sherds with black geometric decoration on red or white slip. These have also been tentatively dated as Ptolemaic by Gascoigne (in Rossi and Ikram 2006: 300). No drawings or photographs of the pottery have been published as yet, thus the confirmation of a Ptolemaic date for this material must wait.

BIBLIOGRAPHY

Rossi and Ikram 2006.

K02. ‘Ain el-Labakha

LOCATION

The site is located in the northern part of Kharga, in the foothills of the northern escarpment, approximately 12 km east of Umm el-Dabadib (K01) (FIGURE 5.2).

DESCRIPTION

This site comprises three temples, a settlement and adjacent cemeteries, as well as a mud-brick fort of the Late Roman Period (Ibrahim *et al.* 2008: 11–17; Rossi and Ikram 2010: 236–239; FIGURE A6.2). *Qanat* systems are located in the surrounding area (Rossi and Ikram 2010: 238). Two of the temples are built in mud-brick, whilst the third is a partially rock-cut temple dedicated to Piyris, which dates to the Early Roman Period based on the inscriptions. The northern mud-brick temple, which has been excavated by the SCA, is apparently of Ptolemaic date (Reddé 1999: 380). This temple is built on top of a rock outcrop adjacent to a spring (Rossi and Ikram 2010: 237). Three Demotic ostraka were recovered during excavations at the site by the SCA, and have been dated to the Late Ptolemaic or Early Roman Period (Kaplony-Heckel 1997: 526, 230), whilst two Ptolemaic coins were found in the sanctuary of Piyris (Ibrahim *et al.* 2008: 25).

The cemeteries are situated in a ridge to the west of the settlement and largely comprise rock-cut tombs of one or two chambers, although some contain shafts that lead to burial chambers (Ibrahim *et al.* 2008;

Rossi and Ikram 2010: 239). The burials are relatively rich and contain gilded and painted cartonnage coverings, as well as glass vessels, pottery and a range of jewellery (Dunand and Lichtenberg 2005b; Ibrahim *et al.* 2008). The style of both the cartonnage and the jewellery points to a Late Ptolemaic or Early Roman date for the cemetery (Ibrahim *et al.* 2008: 25).

BIBLIOGRAPHY

Dunand and Lichtenberg 2005b; Ibrahim *et al.* 2008; Kaplony-Heckel 1997; Reddé 1999: 380; Rossi and Ikram 2010.

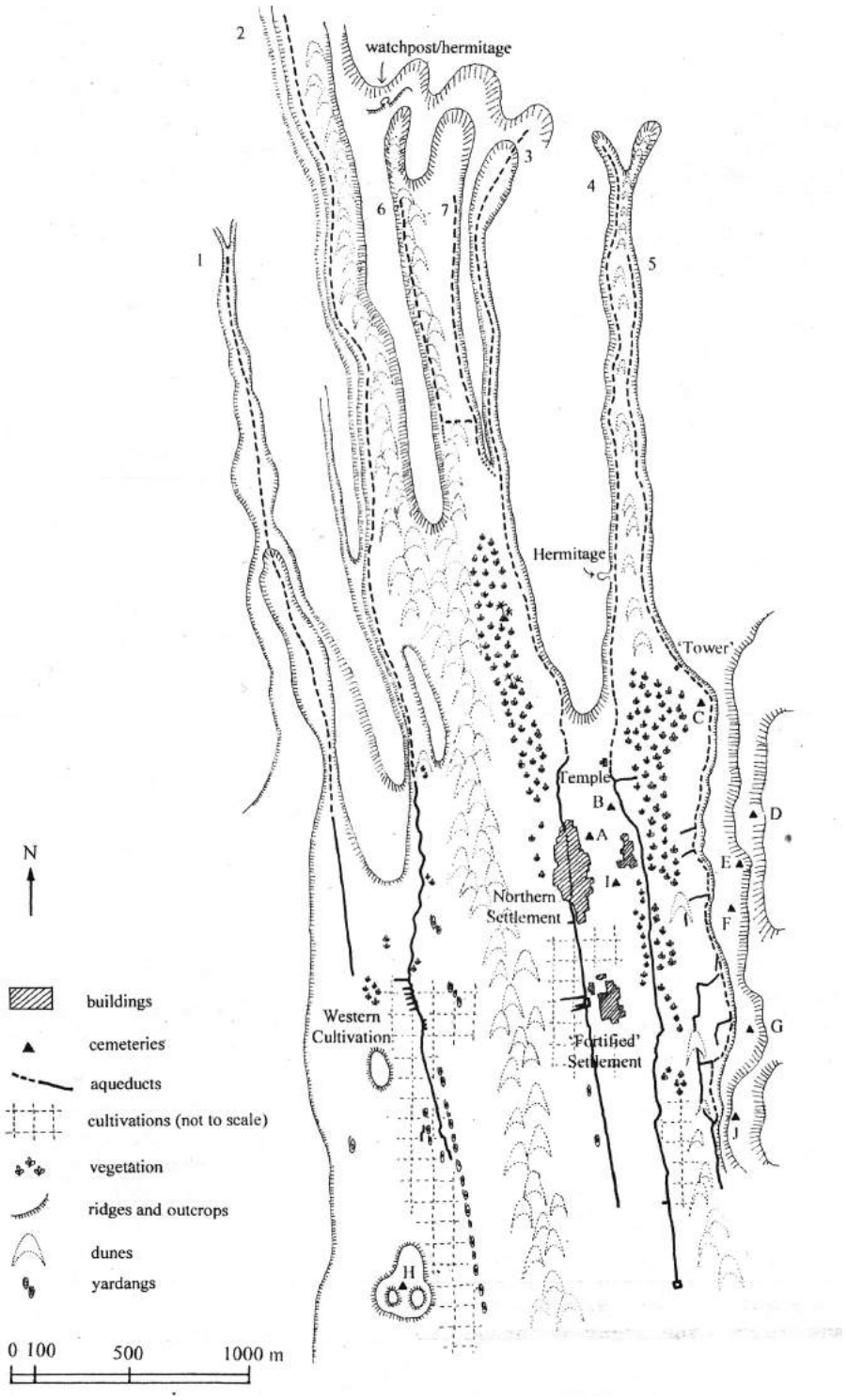


FIGURE A6.1 Umm el-Dabadib: General map (after Rossi and Ikram 2006: Fig. 2).

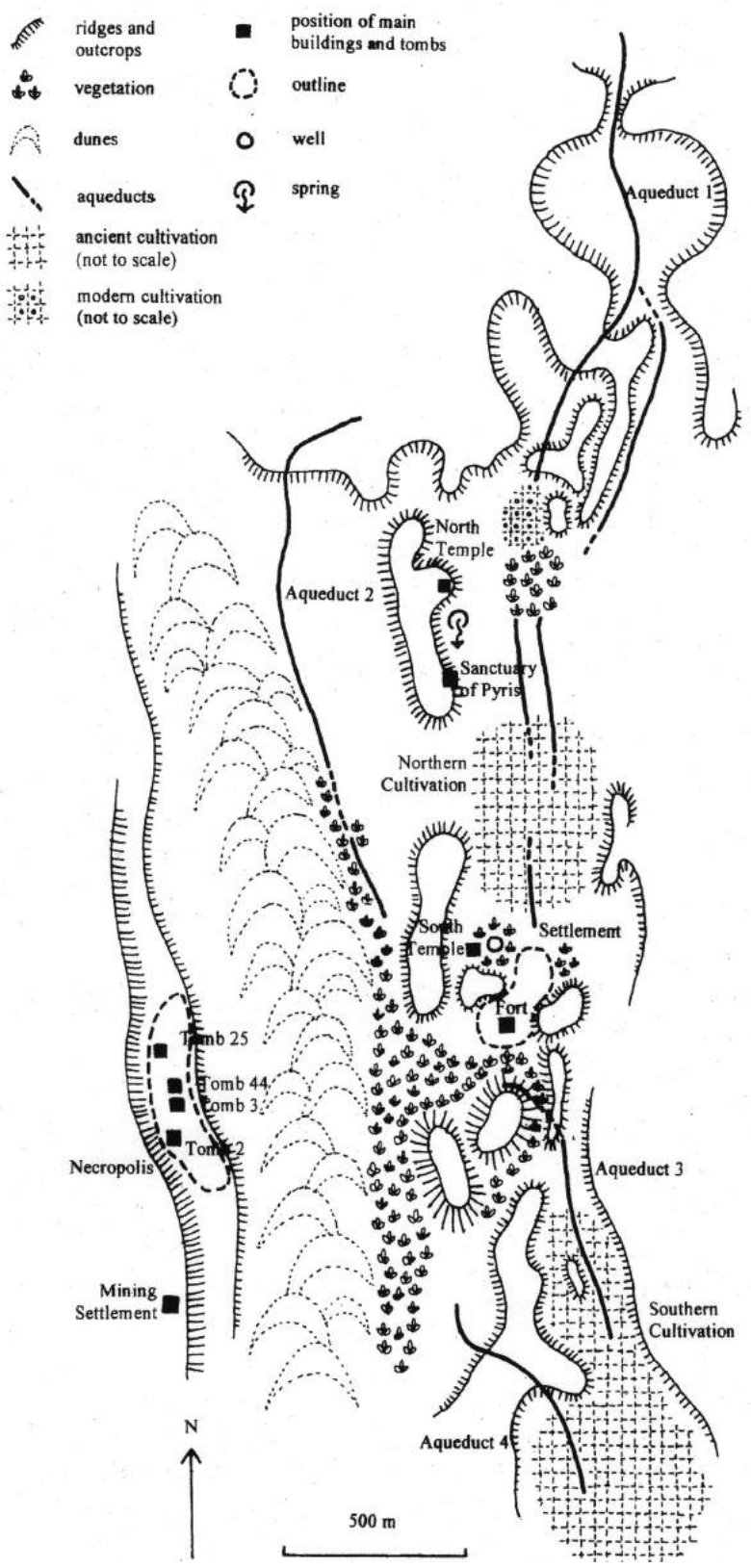


FIGURE A6.2 'Ain el-Labakha: General map (after Rossi and Ikram 2010: Fig. 2).

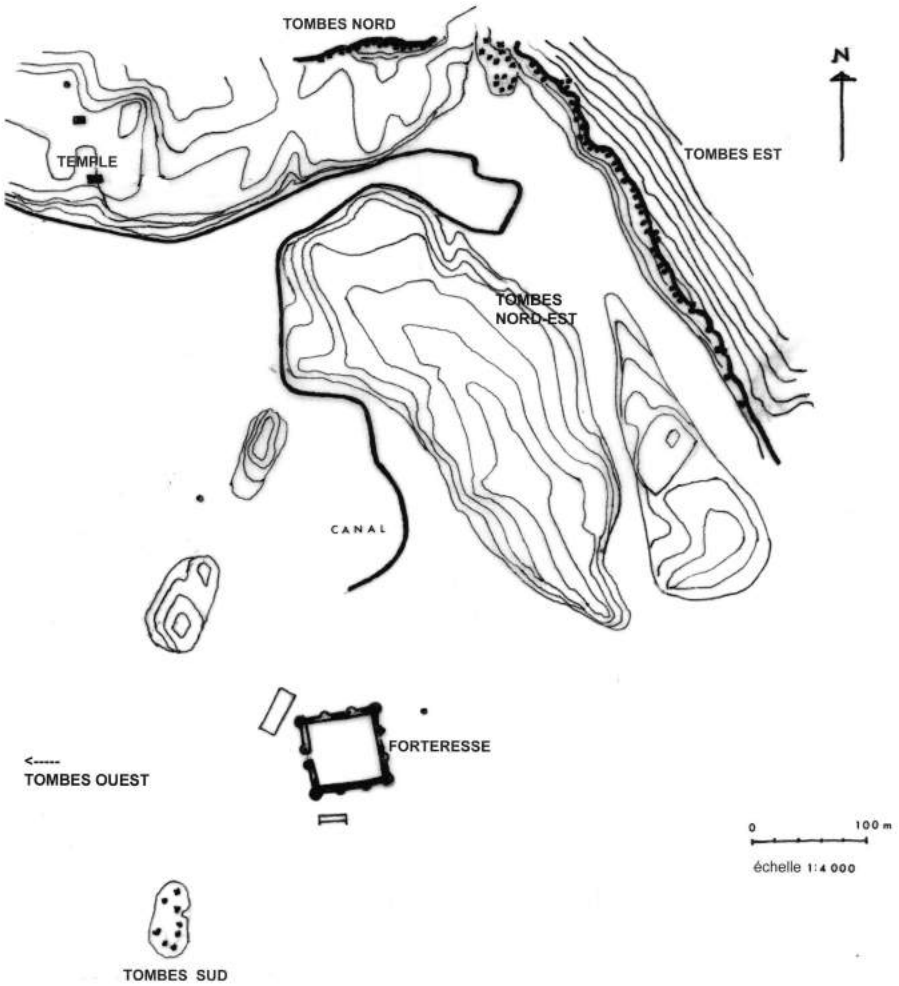


FIGURE A6.3 El-Deir: General sketch map (after Dunand et al. 2012: Fig. 2).

K03. El-Deir

LOCATION

The site is located in the northern part of Kharga, 20 km north-east of Hibis (K06) (FIGURE 5.2).

DESCRIPTION

The site is characterised by a large mud-brick fort of the Late Roman Period. To the north-west of the fort are a small mud-brick temple and an associated settlement, as well as a number of cemeteries on the surrounding ridges (FIGURE A6.3). The ancient name of the site was *Pa-sy* or *Pa-khy*, as identified by M. Chauveau on a Demotic ostrakon of Ptolemaic date found in the temple precinct (Tallet *et al.* 2012: 349, note 1). The site was probably occupied from before the Ptolemaic Period and continued in use through to the Late Roman Period. Based on their associated tomb goods, the tombs seem to range in date from the 4th century BCE through to the 4th century CE (Dunand *et al.* 2012).

The earliest phase of the temple dates to the Ptolemaic Period (Tallet *et al.* 2012: 353). Demotic ostraka, which date to the 2nd century BCE, demonstrate that the temple was dedicated to Amon of Hibis (Dunand *et al.* 2010: 47). A number of Ptolemaic coins dating to the reign of Ptolemy VI were also discovered in the temple (Dunand *et al.* 2010: 47).

Many of the tombs can be dated to the Ptolemaic Period based on the style of the painted cartonnage, pottery and other associated tomb goods (Brones 2004; 2010; Dunand 2004: 569–570; Dunand *et al.* 2012: 289–291; and cf. below). A small mud-brick building located south-west of the Roman fort has been identified as an embalmer's workshop based on the associated finds, and appears to have been in use during the Ptolemaic Period (Dunand *et al.* 2012: 287–288).

POTTERY

Some of the pottery found in the cemeteries can be dated to the Ptolemaic Period (Brones 2004; 2010: Figs 268–277, 375–380; Dunand *et al.* 2013: Pt I, Figs 5–6; Tallet 2014: 240–241). Only a few vessels have been published, but from this we can see that both the range of forms and the style of decoration are comparable to that encountered amongst the Ptolemaic material from Dakhleh (cf. Forms 40, 83 and 93). Furthermore, three vessels found in the embalmer's workshop (Dunand and Lichtenberg 2003: 4) are similar to vessels of Ptolemaic date found in Dakhleh (Numbers **772** and **917**/Form 57).

Overall, there are close similarities between the pottery from the El-Deir cemeteries and that from the nearby cemetery of 'Ain Dabashiya (cf. Dunand *et al.* 2013; 75ff).

BIBLIOGRAPHY

Brones 2004; 2010; Dunand 2004; Dunand and Lichtenberg 2003; 2005a; 2007; Dunand *et al.* 2010; 2012; 2013; Tallet 2014; Tallet *et al.* 2012.

K04. 'Ain Dabashiya

LOCATION

The site is located in the northern part of Kharga, 15 km north of Hibis (K06) (FIGURE 5.2).

DESCRIPTION

This is a large settlement comprising a mud-brick temple, administrative buildings, a pigeon tower, wells and fields, as well as an extensive cemetery to the west and north-west (Ikram and Rossi 2007: 174–175; FIGURE A6.4). The site appears to have been in use during the Ptolemaic and Roman periods. So far, only the cemetery has been investigated in detail and it is from here that the evidence for Ptolemaic activity derives. Excavations conducted here by the SCA have apparently uncovered a Late Ptolemaic burial (Ikram and Rossi 2007: 177), whilst more recent investigations by the NKOS and the Alpha Necropolis Project have revealed a range of Ptolemaic material (Dunand *et al.* 2013). This includes numerous coffins and other tomb goods, such as a painted wooden statue of Ptah-Sokar-Osiris (Dunand 2004: 571, fig. 11), as well as a range of Ptolemaic pottery (cf. below).

POTTERY

Several vessels from the 'Ain Dabashiya cemetery closely resemble Ptolemaic forms found in Dakhleh. These include a spouted vessel (Dunand *et al.* 2013: Figs 159–160; cf. Form 81), several gourds (Dunand *et al.* 2013: Figs 166, 172–173; cf. Form 90), a miniature jar (Dunand *et al.* 2013: Fig. 167; cf. Form 57), a small decorated keg (Dunand *et al.* 2013: Figs 174–175; cf. Form 96), a short-necked cooking-vessel (Dunand *et al.* 2013: Fig. 176; cf. Form 67), a bowl with a modelled rim (Dunand *et al.* 2013: Figs 178–179; cf. Form 30a), a small decorated amphora (Dunand *et al.* 2013: Figs 180–181; cf. Form 78), and a small footed bowl (Dunand *et al.* 2013: Fig. 191; cf. Form 38).

Furthermore, a number of intact vessels found in one of the tombs by the NKOS are Ptolemaic in date. These vessels had been recognised as earlier in date than the Late Roman Period, and were thought to perhaps be Late Ptolemaic or Early Roman based on parallels with Dakhleh (Gascoigne in Ikram and Rossi 2007: 181, Pl. 24a). I have since examined unpublished drawings of this pottery,[1] and it is clear that several of these are Ptolemaic types comparable to vessels found regularly in Dakhleh (cf. Forms 30, 47, 67 and 83). Additional Ptolemaic forms can be identified amongst the drawings of unpublished material from the 'Ain Dabashiya cemetery, including two flasks (cf. Forms 91 and 93), a rim-sherd from a short-necked jar (cf. Form 67), and two small bowls (cf. Form 28).

BIBLIOGRAPHY

Dunand 2004: 571; Dunand *et al.* 2013; Ikram and Rossi 2007.

[1] I am grateful to Alison Gascoigne for showing these to me.

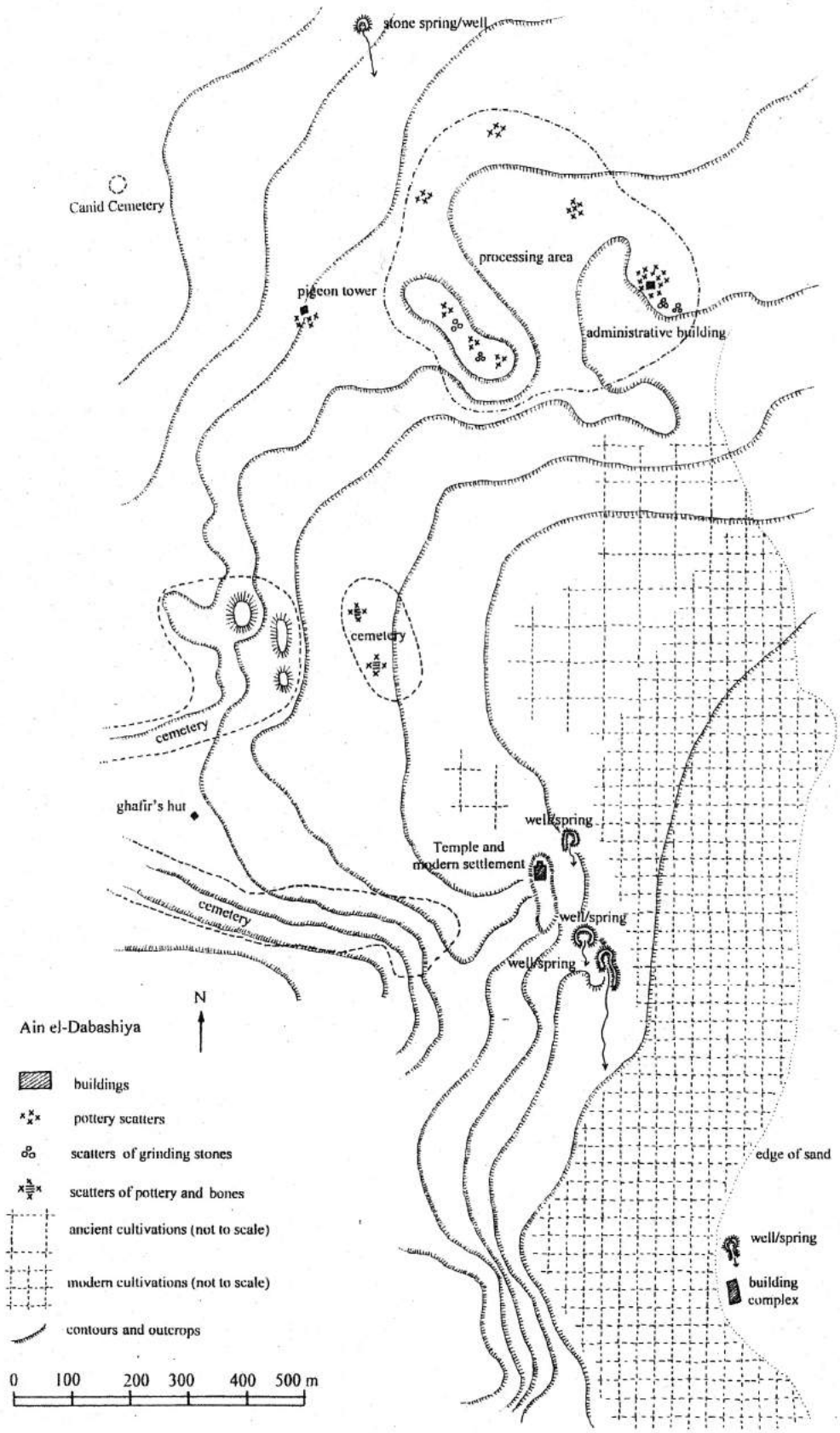


FIGURE A6.4 'Ain Dabashiya: General map (after Ikram and Rossi 2007: Fig. 4).

K05. Gebel el-Teir

LOCATION

This is a mountain located north-west of Hibis (K06) (FIGURE 5.2).

DESCRIPTION

This is the location of several quarries, which were used as a source of stone for the construction of the nearby temple at Hibis. A number of cemeteries are located at the southern end of the gebel, close to Hibis, including the Christian cemetery of Bagawat. The area is also known for the large number of graffiti in Demotic, Greek and Coptic, which are found throughout the quarry. Fakhry (1951) published copies of some of the inscriptions and rock art, whilst Devauchelle and Wagner (1984) published a selection of the Demotic and Greek inscriptions. Amongst these are numerous inscriptions of Ptolemaic date, which largely comprise the names of individuals who were perhaps officials in charge of overseeing work in the quarries. Some of the Ptolemaic graffiti contain regnal years, such as years 30, 34 and 35, which probably date to the reign of Ptolemy VIII (Devauchelle and Wagner 1984; cf. also Cruz-Uribe 1995).

Zone 1: Demotic inscriptions of Late Ptolemaic date (Ptolemy VIII?) (Devauchelle and Wagner 1984: 1–12, Nos 1, 2, 4, 7, 8, 10, 24, 39), Greek inscriptions of Late Ptolemaic date (Devauchelle and Wagner 1984: 12–13, Nos 1–2).

Zone 2: Demotic inscriptions of Late Ptolemaic date (Devauchelle and Wagner 1984: 21–28, Nos 1, 2, 5, 7, 19), Demotic depinto (Kleopatra VII?) (Devauchelle and Wagner 1984: 27, No. 18), Greek inscriptions of Ptolemaic date (Devauchelle and Wagner 1984: 29).

BIBLIOGRAPHY

Cruz-Uribe 1995; Devauchelle and Wagner 1984; Fakhry 1951.

K06. Hibis

LOCATION

The site is located in north-central Kharga, on the northern edge of modern Kharga Town (FIGURE 5.2).

DESCRIPTION

The site is characterised by a large temple complex, which was originally situated adjacent to a large lake, and which was surrounded by an extensive settlement and several cemeteries (FIGURE A6.5). The stone temple is well-preserved, although it has required consolidation and restoration (Ibrahim 2012: 3); however, the settlement is largely buried under the surrounding cultivation. The temple is dedicated primarily to Amun of Hibis. The main temple building measures 42.0 x 20.0, and is 9.0 m high (FIGURES A6.6 and A6.7). The original construction dates to the Persian Period or perhaps slightly earlier, whilst the inscriptional evidence indicates that additions were made to the temple during the reigns of Ptolemy II, Ptolemy III, and Ptolemy V (Winlock 1941: 39).

During the early Ptolemaic Period the original temenos wall appears to have been removed, and the temenos enlarged (Winlock 1941: 34–35), as the gateways and the enclosure wall appear to have been constructed under Ptolemy II or one of his immediate successors (Winlock 1941: 35; FIGURE A6.6). A Greek inscription preserved on part of a lintel records that an individual, whose name is not preserved, constructed the girdle wall and gateways during the reign of Ptolemy II and Berenike (Winlock 1941: 33, Pl. XLII). The name of the official is only partially preserved, but it could perhaps be reconstructed as '*strategos*' (Evelyn-White and Oliver 1938: 49–50). The gateway was likely decorated in the later part of the Ptolemaic Period, although the cartouches were left blank. The lower avenue of sphinxes was probably also a later Ptolemaic addition (Winlock 1941: 36).

Additional evidence for Ptolemaic activity has been found at the site and includes Ptolemaic coins and pottery from a rubbish dump under House B, located in the area east of South Building II (Winlock 1941: 42). In the same area, a cache of nearly one hundred bronze Osiris figures were uncovered, which are

probably of Ptolemaic or Roman date (Winlock 1941: 42–43). A variety of Ptolemaic coins were discovered within the temenos, particularly in the houses south of the temple, and include issues dating to the reigns of Ptolemies II, III, IV, V and VI (Newell 1941). A number of Demotic ostraka were also discovered during excavations. They are fragmentary and faded, and appear to date largely to the Early Ptolemaic Period (Kaplony-Heckel 1997; 2000: 60). The ostraka are generally administrative in nature and comprise lists of people, receipts and orders for payment connected with the day-to-day administration of the temple (Kaplony-Heckel 2000: 60), including a number of orders for delivery of seed-corn addressed to the 'Representatives of the Gate' (Kaplony-Heckel 2000: 71–76: Nos 18–25).

POTTERY

Pottery of possible Ptolemaic date was uncovered within the rubbish dump under House B, along with Ptolemaic coins (Winlock 1941: 42). This pottery has not been published, although Winlock (1941: 42) reported finding fragments of Greek pottery, including decorated and black-polished sherds, and fragments of local globular cooking pots.

BIBLIOGRAPHY

Cruz-Uribe 1998; 2008; Davies 1953; Evelyn-White and Oliver 1938; Kaplony-Heckel 2000; Klotz 2006; Newell 1941; Winlock 1909; 1910; 1941.

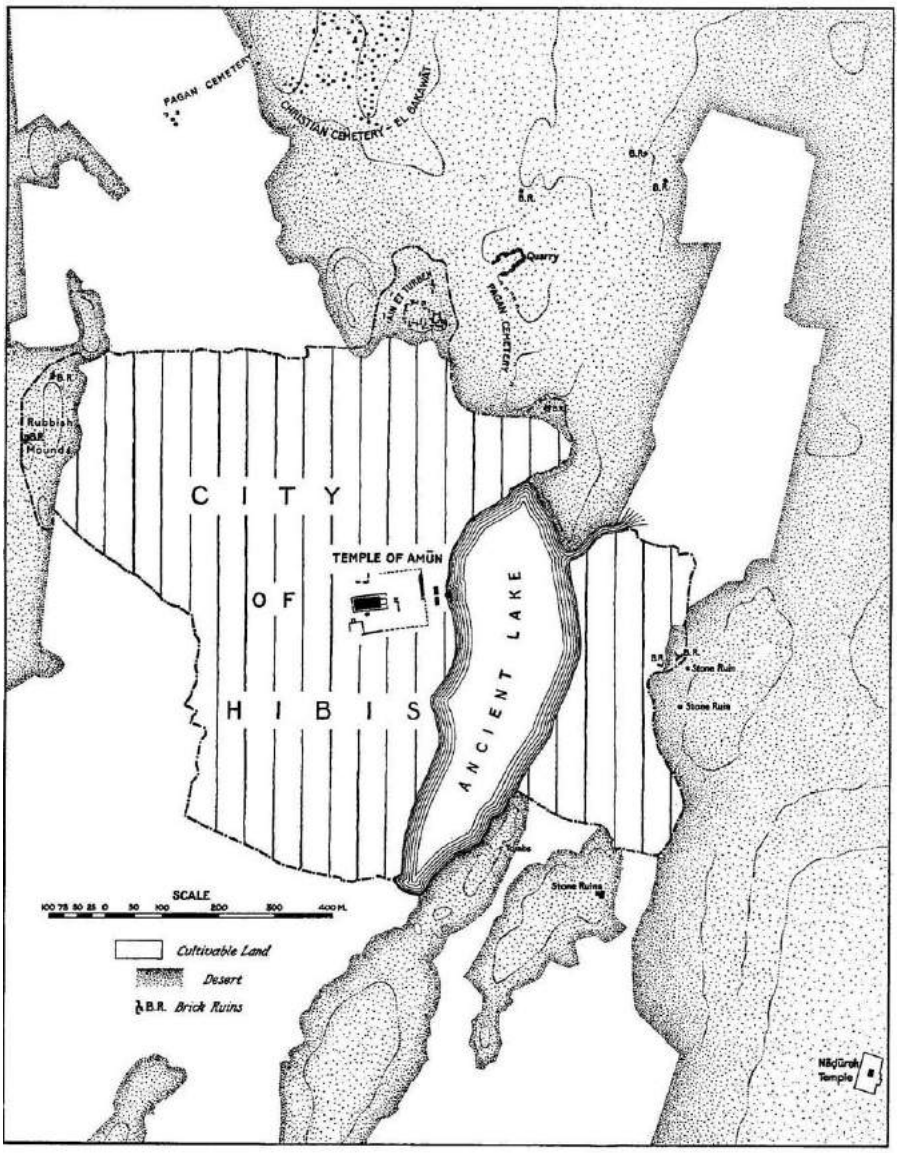


FIGURE A6.5 Hibis: Map of the city and its surroundings (after Winlock 1941: Pl. XXIX).

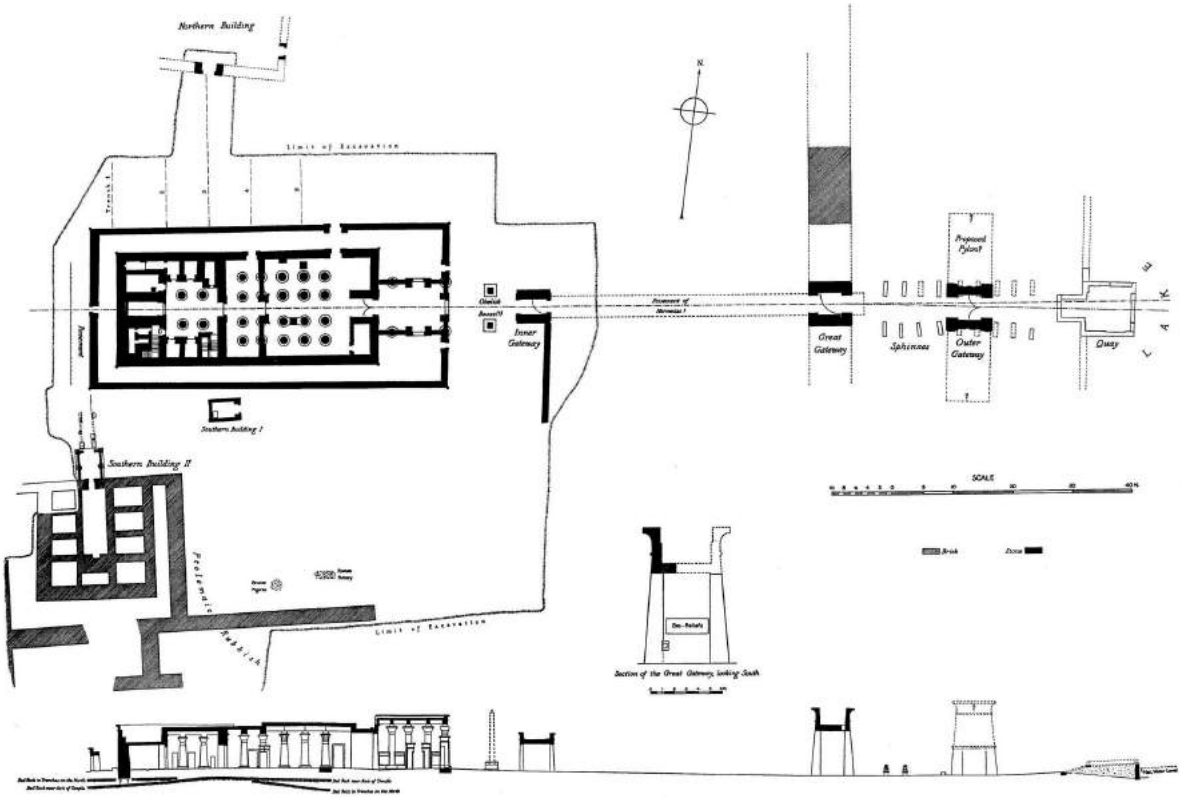


FIGURE A6.6 Hibis: general plan of the temple, gateways and excavated structures within the temenos (after Winlock 1941: Pl. XXX).

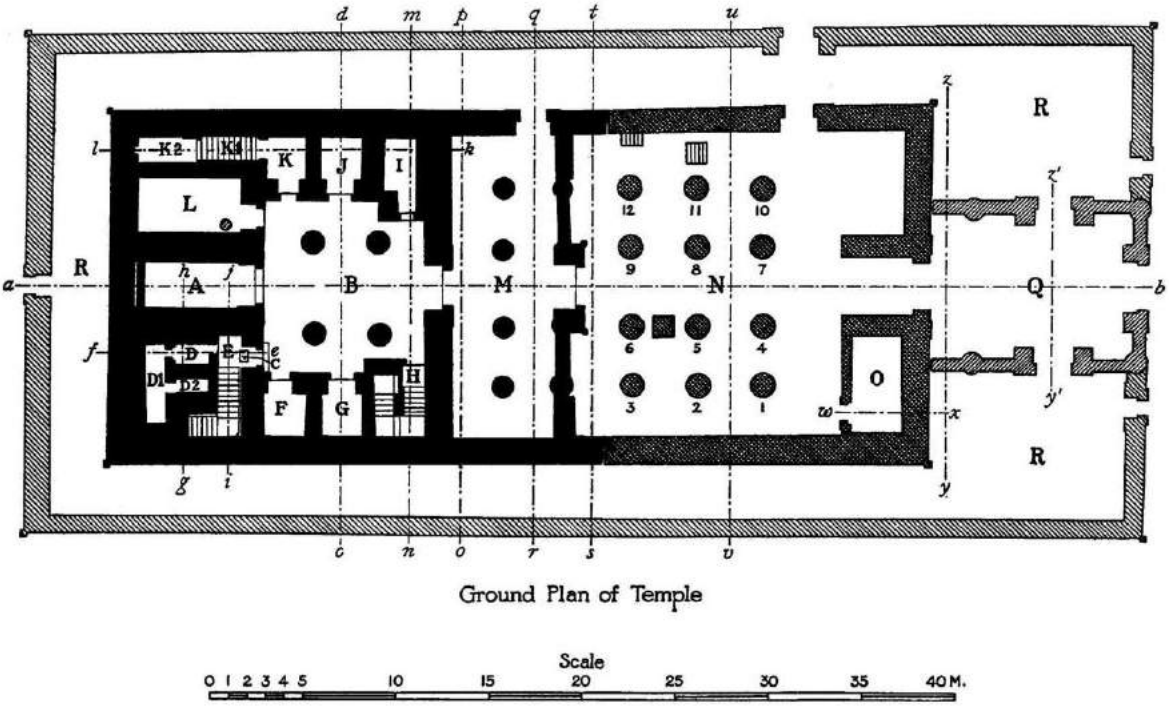


FIGURE A6.7 Hibis: ground plan of the temple (after Winlock 1941: Pl. XXXII).

K07. Qasr el-Ghueita (*Per-wesekh*)

LOCATION

The site is located in the central part of Kharga, 20 km south of Hibis (K06) and 5 km north of Qasr Zaiyan (FIGURE 5.2). It was originally situated on a rocky outcrop, but the surrounding area has been built up by subsequent occupation (Darnell *et al.* 2013: 8).

DESCRIPTION

The site is characterised by a well-preserved sandstone temple of Persian/Ptolemaic date, which is dedicated to Amun, Mut and Khonsu. It comprises a forecourt, a hypostyle hall with four columns, a transverse hall and three rear chambers, and is surrounded by an extensive complex of mud-brick structures and an enclosure wall (Darnell 2006; 2007: 29; Darnell *et al.* 2013; FIGURE A6.8). Evidence for activity at the site goes back to at least Dynasty XVIII, at which time wine from the adjacent vineyards was being exported to the Nile Valley. From Dynasty XVIII the site was known as Per-wesekh (*pr-wsḫ*), and it continued to be known as such during the Ptolemaic Period (Darnell *et al.* 2013: 6–7).

The earliest inscriptional evidence dates to the reign of Darius I; however, there is architectural evidence for the presence of an earlier shrine (Darnell 2006; 2007b; Darnell *et al.* 2013: 12). The name of Ptolemy III appears on the entrance to the sanctuary and the inscriptions also inform us that Ptolemy III built the hypostyle hall and forecourt, whilst additional texts and scenes were added under Ptolemy IV and Ptolemy IX (Darnell 2007b: 29–31; Darnell *et al.* 2013: 8, 20).

The bandeau inscriptions of Ptolemy III and Ptolemy IV in the hypostyle hall tells us that they provisioned the temple 'with all good products which come from Bahariya Oasis (*iḫt nb nfr pr*(*.w*) *m ḏsḏs*)' (Darnell *et al.* 2013: 30, Fig. 15). The inscription of Ptolemy III further informs us that he constructed the temple 'in order to direct divine offerings to Thebes, for his father (*r ḫrp ḥtp.w-nṯr r W3s.t n it=f*)' (Darnell *et al.* 2013: 30). In addition to these inscriptions, Greek graffiti of Ptolemaic date attest to the presence of visitors from Megara, Chalchis, Xanthos and Lycia (Wagner 1987: 224).

BIBLIOGRAPHY

Darnell 2006; 2007b; Darnell *et al.* 2013; Wagner 1987: 224.

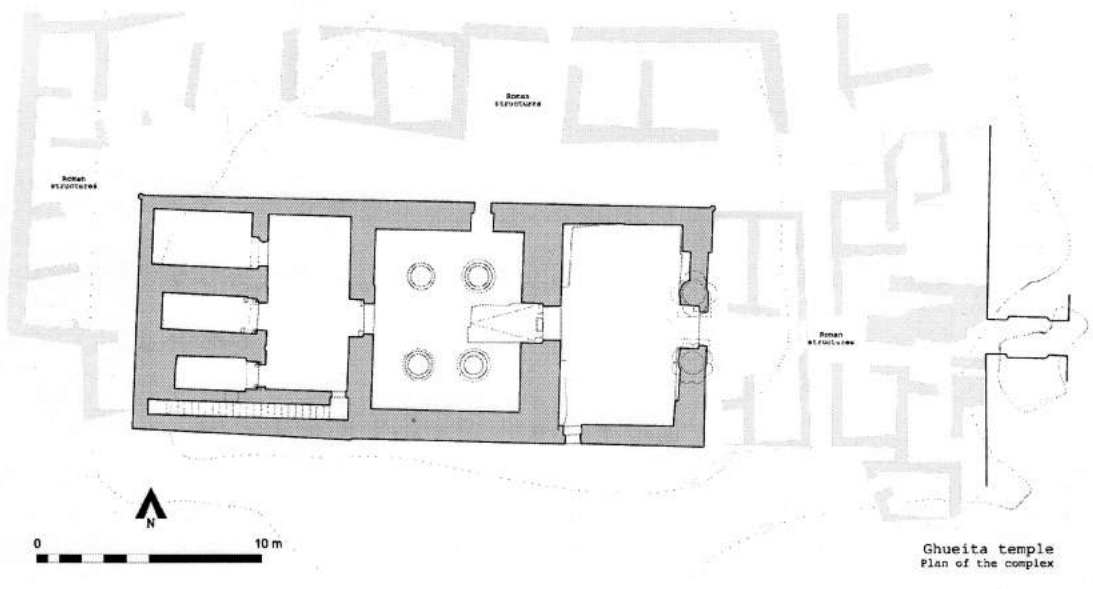


FIGURE A6.8 Qasr el-Ghueita: Ground plan of the temple (after Darnell et al. 2013: Fig. 2).

K08. KS010

LOCATION

The site is located in the southern part of Kharga, approximately 4 km south-west of 'Ain Manawir (K09) (FIGURES 5.2 and A6.9).

DESCRIPTION

This appears to be a settlement; however, the Ptolemaic remains are largely covered by the Roman Period occupation. Surface pottery was collected during a survey by l'IFAO, some of which has been dated to the Ptolemaic Period (3rd century BCE) (Mathieu 2002: 486); however, none of this material has been published.

BIBLIOGRAPHY

Mathieu 2002: 486.

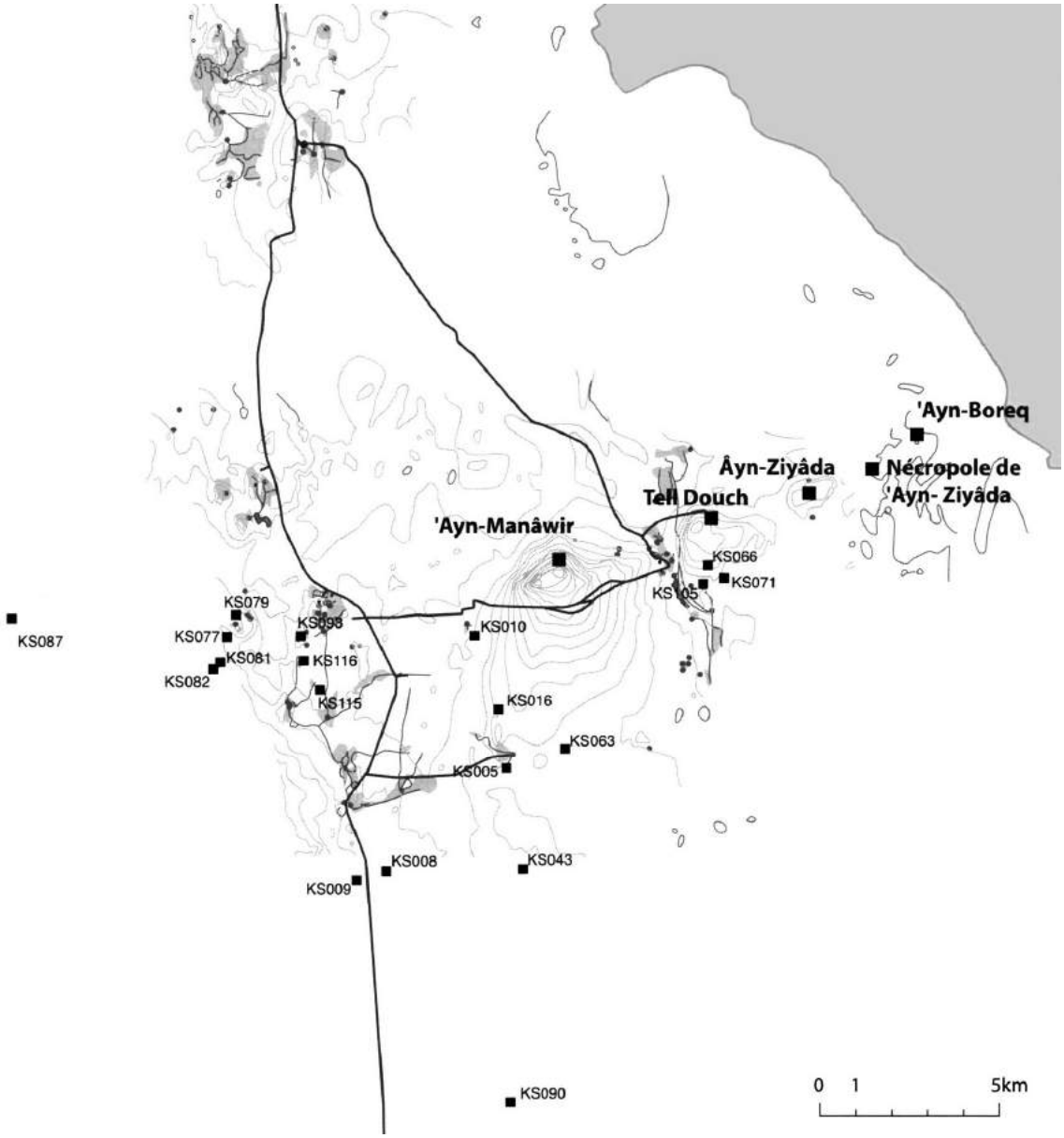


FIGURE A6.9 Map of 'Ain Manawir, Dush 'Ain Ziyada and other sites in the surrounding area (after Wuttmann and Marchand 2005: 119, Map 3).

K09. 'Ain Manawir

LOCATION

The site is located in the southern part of Kharga, 4 km west of Dush (K10) (FIGURES 5.2 and A6.9).

DESCRIPTION

This site comprises a large settlement, a mud-brick temple of Persian date dedicated to Osiris, and adjacent cemeteries (FIGURE A6.10). Surrounding the settlement is an extensive system of *qanats* (Wuttmann 2007). The settlement was established in the early 5th century BCE, and appears to have gone into decline during the early 4th century, although there is evidence for continued occupation during the Ptolemaic and Roman periods (Wuttmann *et al.* 1996: 392). The settlement was then abandoned and covered by sand, and subsequently disappeared under agriculture during the Roman Period (Mathieu 2001: 493). The cemeteries also appear to have been in use during the Ptolemaic Period (Wuttmann *et al.* 1996: 392).

Pottery and ostraka of Ptolemaic date have been found in several of the houses and on the surface of the site. The house detected in Trench MME has yielded pottery dating to the early Ptolemaic Period, as well as a Demotic ostrakon of Ptolemaic date (Wuttmann *et al.* 1998: 381, 438), whilst three Ptolemaic ostraka found on the surface of a house close to *qanat* Q2 preserve the name 'Ptolemy son of Ptolemy' (Wuttmann *et al.* 1998: 437, Fig. 59d–e, 60a). The hill between *qanats* Q1 and Q2 is covered with sherds of Ptolemaic date, very similar to the material found in sector MME (Wuttmann *et al.* 1998: 438), whilst Ptolemaic material was also recovered from well P2 of *qanat* Q4 (Wuttmann *et al.* 1998: 461).

POTTERY

The published examples of Ptolemaic pottery from Trench MME, includes cooking-vessels (cf. Forms 14 and 47b from Dakhleh, although without handles) and a jar with a modelled rim (cf. Form 64 from Dakhleh) (Wuttmann *et al.* 1998: Fig. 59a–c). Further examples of the latter form are found amongst the unpublished pottery from MME, as well as from *qanat* Q4.[2] Two kegs, which are cream-slipped and decorated with black and red linear and floral designs, were also discovered at the site (Marchand 2000b: Figs 5–6). These have been dated to Dynasty XXIX; however, the shape of the rim is comparable to Ptolemaic vessels found in Dakhleh (cf. Form 96), and the decoration is similar to that encountered in Dakhleh during the Ptolemaic Period (cf. CHAPTER 3).

The three Ptolemaic ostraka found near *qanat* Q2 are written on diagnostic rim-sherds, which are comparable to Form 30 from Dakhleh (Wuttmann *et al.* 1998: 437, Fig. 59d–e, 60a).

BIBLIOGRAPHY

Marchand 2000b; Mathieu 2001; Wuttmann 2001; Wuttmann *et al.* 1996; 1998; 2007.

K10. Dush (*Kysis*)

LOCATION

The site is located in the southern part of Kharga, 4 km east of 'Ain Manawir (K09) (FIGURES 5.2 and A6.9).

DESCRIPTION

The site comprises a settlement, two temples and surrounding cemeteries (FIGURE A6.11). The cemeteries are likely to have been in use during the Ptolemaic and Roman periods, although investigations so far have only yielded evidence dating to the Roman Period (Dunand *et al.* 1992; 2005). The main temple, which is built in stone, is dedicated to Sarapis and is dated to the Roman Period based on the inscriptions, although an earlier, possible mud-brick shrine might have been built here during the Late Persian or Ptolemaic Period (Reddé *et al.* 2004: 171–172).

[2] I am grateful to Sylvie Marchand for showing me illustrations of this material.

Adjacent to this temple is a fortified structure, which was originally identified as a Late Roman fort, but which appears to belong to a much earlier fortified settlement complex, possibly of Ptolemaic date (cf. Reddé 1999: 377; Reddé *et al.* 2004: 172–176). Excavations in the north-west corner of the fortified enclosure (Sector O21/22/23) have yielded three bronze coins of Ptolemy II, as well as a Demotic ostrakon dating to regnal year 38, which likely refers to year 38 of Ptolemy II (247/248 BCE) (Gascou *et al.* 1980: 322, 336; Reddé *et al.* 2004: 172). Four additional ostraka, which preserve the name 'Ptolemy son of Ptolemy', were also found within the enclosure (Wuttmann *et al.* 1998: 438, Fig. 60b–c, 70c). Ptolemaic pottery has also been discovered in parts of the fortified enclosure, as well as below the pavement in the second court of the stone temple (Reddé *et al.* 2004: 173; cf. below). There is also a mud-brick temple located to the west of the main temple (FIGURE A6.11). This temple is not inscribed and its date of construction is unknown, although carbon-dating of the mud-bricks indicates a Late Persian or Ptolemaic date (Reddé *et al.* 2004: 179–180).

POTTERY

Ptolemaic pottery has been identified in various areas of Dush, including below the pavement in the second courtyard of the stone temple, and in some parts of the fortified enclosure adjacent to the sanctuary (Ballet in Reddé *et al.* 2004: 211–215, Figs 213–214). The published vessels from these areas are comparable to Ptolemaic forms found frequently in Dakhleh (cf. Forms 11, 24, 25, 27, 31, 32a, 35, and 94).

Houses in the north enclosure have yielded an assemblage of Ptolemaic pottery, including nearly complete forms and decorated sherds, as well as four Ptolemaic ostraka, which are written on diagnostic rim-sherds (Marchand in Wuttmann *et al.* 1998: 438, Fig. 60b–c, 70c). The latter are deep bowls with modelled rims and ring-bases, comparable to Form 30 from Dakhleh. The fill of House DEW included a keg with a modelled rim and the upper part of a small two-handled vessel (Marchand 2007: Figs 27 and 32); the latter is perhaps comparable to Form 88 from Dakhleh. The surface pottery in this area is of mixed date, with material dating to the late Persian, Ptolemaic and Roman periods; however, the Ptolemaic pottery is more abundant (Mathieu 2001: 494). A range of vessels from House DEN have been dated to the Ptolemaic Period (end of 4th to 3rd century BCE) (Marchand 2007: Figs. 34–39, 41). These are comparable to Forms 61, 64, 67, and 93 from Dakhleh and the style of the decoration is also similar.

BIBLIOGRAPHY

Dunand *et al.* 1992; 2005; Gascou *et al.* 1980; Marchand 2007; Mathieu 2001: 494; Reddé 1999; Reddé *et al.* 2004; Wuttmann *et al.* 1998.

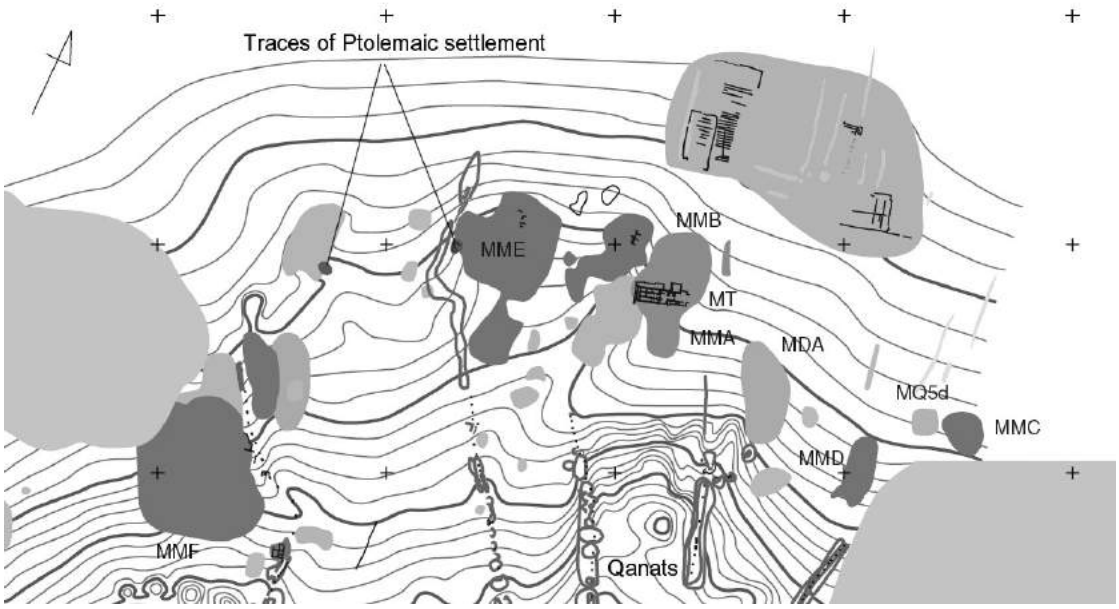


FIGURE A6.10 'Ain Manawir: Map of the settlement showing areas of Ptolemaic settlement (adapted from Wuttmann et al. 1998: Fig. 64).

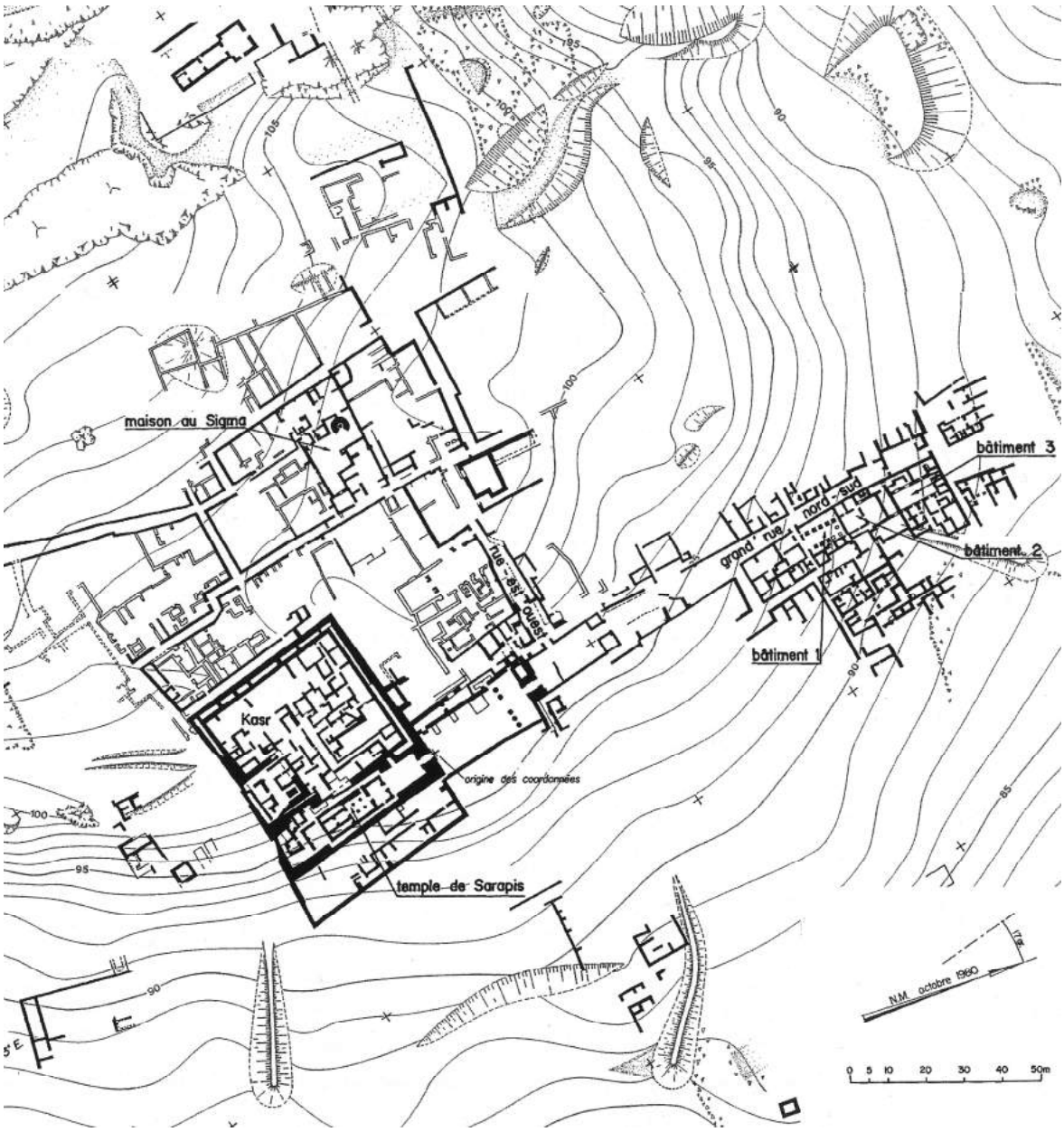


FIGURE A6.11 Dush: General map (adapted from Reddé et al. 2004: Plan 1).

K11. 'Ain Ziyada (Tell el-Dabba el-Sarqiyya)

LOCATION

The site is located in the southern part of Kharga, approximately halfway between Dush (K10) and the eastern escarpment (FIGURES 5.2 and A6.9).

DESCRIPTION

The site is a small settlement, which is surrounded by ancient field-systems on the north, south and south-west, as well as a cemetery on the east (Giddy 1987: 8). It appears to have been occupied during the Ptolemaic and Roman periods, and perhaps earlier.

During the survey of the site by l'IFAO, the clearance of a *qanat* revealed a cache of ostraka. Two of the ostraka are contracts for the sale of days of water, apparently in connection with the *qanat* in which they were found (Chauveau 2008: 434). One is dated to year 2 of Alexander son of Alexander (315 BCE), while the other is dated to year 17 of Ptolemy I (288 BCE). In both cases, the neighbouring lands are mentioned (Chauveau 2008: 434–435). A Ptolemaic coin was also found at the site (Giddy 1987: n.74).

POTTERY

The surface pottery is apparently all datable to the Ptolemaic Period (3rd century BCE) (Marchand in Mathieu 2002: 480), whilst the pottery from House ZMA dates to the 4th century BCE (Marchand in Mathieu 2002: 480). None of this material has been published, apart from a keg with a collared rim, which dates to the end of the 4th century BCE (Marchand 2007: Fig. 30; cf. Form 98).

BIBLIOGRAPHY

Chauveau 2008; Giddy 1987; Marchand in Mathieu 2002; Marchand 2007.

K12. KS005

LOCATION

This site is located in the southern part of Kharga, approximately 7 km south of 'Ain Manawir (K09) (FIGURES 5.2 and A6.9).

DESCRIPTION

This is an occupation site, or possibly a settlement, dating to the Ptolemaic and Roman periods. The evidence for a Ptolemaic phase of activity at the site is limited to only a small number of potsherds; the Roman Period remains obscure most traces of the earlier occupation (Mathieu 2002: 486).

BIBLIOGRAPHY

Mathieu 2002: 486.

K13. KS008

LOCATION

This site is located in the southern part of Kharga, approximately 10 km south-west of 'Ain Manawir (K09) and adjacent to site KS009 (K14) (FIGURES 5.2 and A6.9).

DESCRIPTION

This is a cemetery associated with the settlement KS009 (K14). Pottery and other material collected from the site during the survey by l'IFAO has been dated to the Ptolemaic Period (3rd century BCE) and Roman Period (Mathieu 2002: 486).

POTTERY

Some of the pottery from the site has been dated as Ptolemaic (Mathieu 2002: 486). A sherd from a keg with a collared rim has been published and is dated to the 3rd century BCE (Marchand 2007: Fig. 31; cf. Form 97 from Dakhleh).

BIBLIOGRAPHY

Marchand 2007; Mathieu 2002: 486.

K14. KS009

LOCATION

This site is located in the southern part of Kharga, approximately 10 km south-west of 'Ain Manawir (K09) and adjacent to the cemetery KS008 (K13) (FIGURES 5.2 and A6.9).

DESCRIPTION

This is a settlement that appears to have been occupied primarily during the 5th and 4th centuries BCE and again during the Roman Period. Traces of buildings are visible on the surface; however, these appear to relate to the Roman Period occupation (Mathieu 2002: 486). There is a small amount of evidence for

Ptolemaic activity at the site, in the form of pottery, although it is unclear whether this reflects a Ptolemaic phase of use for the settlement. The site is associated with the cemetery KS008 (K13), which has also yielded Ptolemaic pottery.

POTTERY

Pottery has been collected from the site during a survey by l'IFAO, some of which dates to the Ptolemaic Period (Mathieu 2002: 486). A sherd from a keg with a collared rim has been published and is dated to the end of the 4th century BCE (Marchand 2007: Fig. 29; cf. Form 97 from Dakhleh).

BIBLIOGRAPHY

Marchand 2007; Mathieu 2002: 486.

BAHARIYA OASIS

B01. El-Tebanieh

LOCATION

The site is located in the northern part of Bahariya, approximately 3 km west of el-Bawiti (FIGURES 5.4 and 5.5). It is situated 40 m north of Qasr el-Megysba (B02) and is clearly associated with that site.

DESCRIPTION

The site covers an area measuring 80 x 90 m and comprises a group of mud-brick building, interpreted as houses (Fakhry 1950: 85). The largest building was tested.

Building 1 measures 9.0 x 11.0 m and is accessed via three entrances opening west, which lead to a columned courtyard (FIGURE A6.12). Additional walls were built in the courtyard during a later period. A staircase leads to an upper floor. The bottom course of the central walls and the floor are constructed of sandstone. Fakhry (1950: 85) described this building as a house, although it is possible that it was originally a temple given the layout and the fact that the floor and wall foundations are stone. It may have been converted into a house at a later stage. Fakhry (1950: 85) found four ceramic lamps, which he tentatively dated as Ptolemaic.

BIBLIOGRAPHY

Fakhry 1950: 85.

B02. Qasr el-Megysba (Temple of Alexander the Great)

LOCATION

The site is located in the northern part of Bahariya, approximately 3 km west of el-Bawiti (FIGURES 5.4 and 5.5). It is situated 40 m south of el-Tebanieh (B01) and is clearly associated with that site.

DESCRIPTION

The site comprises a two-chambered sandstone temple measuring 9.0 x 6.5 m, which is surrounded by a mud-brick temenos measuring 54.0 x 19.5 m at its greatest dimension (FIGURE A6.13). A sandstone gateway is located at the southwest corner of the temenos. Inside the temenos are 43 mud-brick chambers, including dwellings, storage rooms and a side chapel with a mud-brick altar (Fakhry 1950: 41–42; 1974: 100). The decoration inside the temple depicts Alexander in typical Egyptian style offering to Horus, Isis and Amen-Re and possibly Mut; the name of Alexander appears in a cartouche. The governor or high priest of the oasis is also depicted (Fakhry 1941b: 825–827; 1950: 45).

Finds from within the building include a statue depicting a priest of Re, which might be Ptolemaic, a Ptolemaic bronze statue, fragments of a Ptolemaic amulet, Ptolemaic coins and Demotic and Greek ostraka (Fakhry 1941b: 828; 1950: 47; 1974: 100–101; Hawass 2000: 198). A red-granite altar was found outside the enclosure wall (Hawass 2000: 198).

POTTERY

The pottery collected from the surface and during excavations apparently dates from the Ptolemaic through to the Late Roman Period. Fakhry (1950: Pl. XXX–XXXI) published photographs of some of the pottery, which includes several possible Ptolemaic types. Hawass (2000: 198) reported finding Greek, Roman and Coptic pottery, although it is unclear whether he meant imported Greek pottery or pottery of Greek (Ptolemaic) date.

BIBLIOGRAPHY

Fakhry 1939b: 638–639; 1941b; 1950: 42, 45–47; 1974: 65, 99–102; Hawass 2000: 195–201.

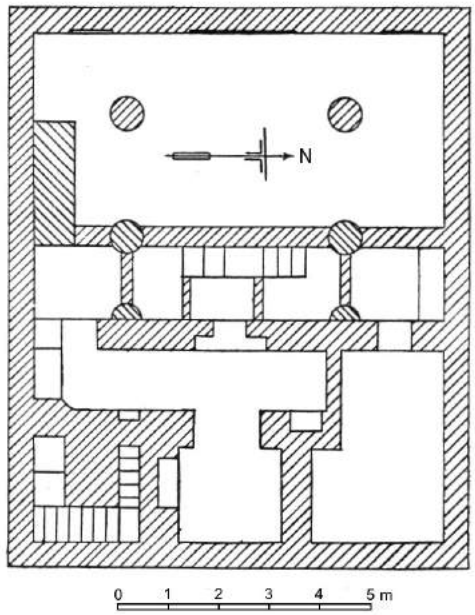


FIGURE A6.12 El-Tebanieh: Plan of Building 1 (after Fakhry 1950: 85).

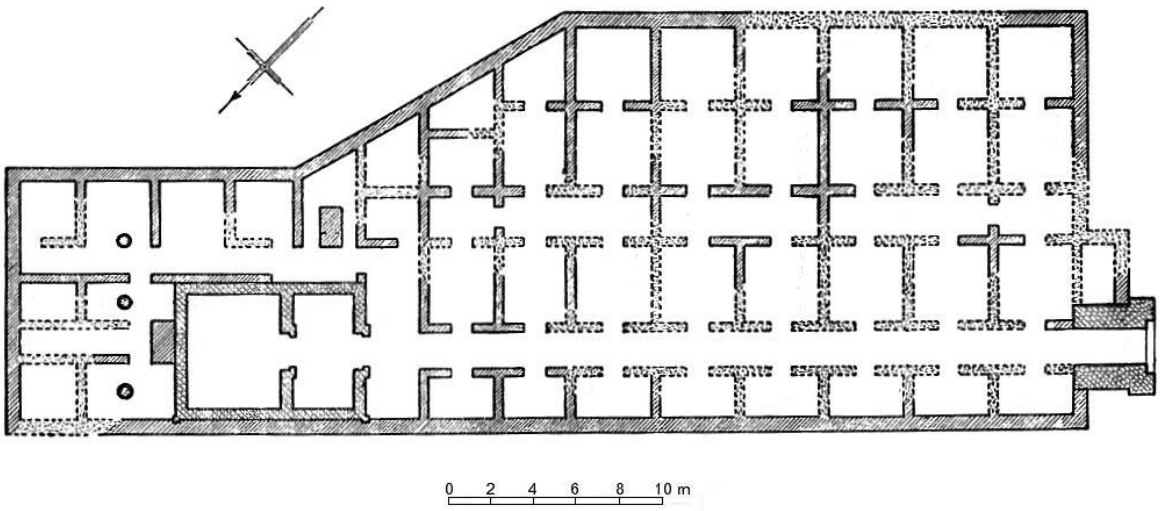


FIGURE A6.13 Qasr el-Megysba: Plan of the temple (after Fakhry 1950: 43).

B03. Valley of the Golden Mummies

LOCATION

The site is located in the northern part of Bahariya, approximately 1 km south of Qasr el-Megysba (B02) (FIGURES 5.4 and 5.5).

DESCRIPTION

The site is an extensive cemetery containing a large number of multi-chambered, rock-cut tombs. The name 'Valley of the Golden Mummies' derives from the discovery at the site of a considerable number of mummified bodies covered in gilded and painted cartonnage (Hawass 2000). The style of the mummies and tomb goods, as well as the style of the tomb construction, all indicate that the cemetery was used during the Ptolemaic and Roman periods (Hawass 2000: 49). Several tombs have been excavated, although very little in the way of results has been published.

Tomb 62 is a large multi-chambered, rock-cut tomb, which contained 32 bodies. Some individuals were buried in wooden coffins, while others were covered in painted cartonnage, or simply wrapped in linen. Ptolemaic coins were found in Chamber 1, including one of Kleopatra VII (Hawass 2000: 42–43, 78).

POTTERY

Some of the pottery found in the tombs appears to be of Ptolemaic date (Hawass 2000: 79), including a two-handled jar comparable to Form 74 from Dakhleh. Hawass (2000: 79 and 161) also published a photograph of a Bes-vessel from one of the tombs, which is similar to one found by Fakhry in a tomb near Qasr el-Megysba (Fakhry 1938: Pl. 71a); both Bes-vessels are probably of late Ptolemaic or early Roman date (cf. Gill *Forthcoming a*).

BIBLIOGRAPHY

Hawass 2000.

B04. El-Ayoun

LOCATION

The site is located in the northern part of Bahariya, approximately 1.5 km west of el-Bawiti. It lies 500 m north-west of Qasr 'Allam (B05) (FIGURES 5.4 and 5.5).

DESCRIPTION

The site is a small temple or chapel comprising a single sandstone chamber with a central pedestal or altar, and associated mud-brick chambers (Fakhry 1974: 64; FIGURE A6.14). The stone chamber is uninscribed, but may have been constructed during Dynasty XXII, based on an inscribed stela found at the site (Fakhry 1974: 64).

Fragments of glass vessels were found in the south doorway of the chapel and were dated as Ptolemaic by Fakhry (1950: 90). Fakhry (1974: 64) proposed that the mud-brick chambers were added during the Ptolemaic Period, although it is unclear why.

BIBLIOGRAPHY

Fakhry 1950: 89–90; 1974: 62–64, 98.

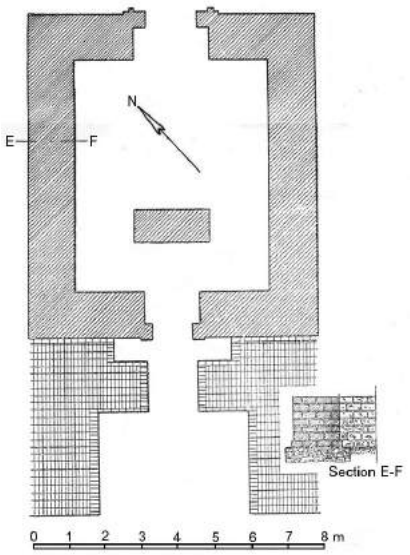


FIGURE A6.14 El-Ayoun: Plan of the chapel (after Fakhry 1950: 89).

B05. Qasr 'Allam

LOCATION

The site is located in the northern part of Bahariya, approximately 1.5 km west of el-Bawiti (FIGURES 5.4 and 5.5).

DESCRIPTION

The site is characterised by a large mud-brick complex, which Fakhry (1974: 98) originally identified as a Roman fort. Since then, geophysical survey and excavation by a mission from l'IFAO has revealed this to be an administrative complex, dating to Dynasties XXV–XXVI, which formed part of the 'Estate of Amun' (Colin 2011; Midant-Reynes and Denoix 2010: 327–329). The complex is surrounded by an extensive system of *qanats* (De Angeli 2013: 277).

There is a small amount of evidence for Ptolemaic activity at the site. This includes a keg from a destruction level in Sector 2, which is comparable to one of Early Ptolemaic date found at Dush, as well as two ostraka from the same level, which are dated on palaeographic grounds to the Ptolemaic Period (Mathieu 2003: 537). At this stage, the exact nature of this Ptolemaic activity is not clear.

BIBLIOGRAPHY

Colin 2011; De Angeli 2013: 277; Mathieu 2003: 537; Midant-Reynes and Denoix 2010: 327–329.

B06. Qaret el-Toub

LOCATION

The site is located in the northern part of Bahariya, on the western edge of el-Bawiti (FIGURES 5.4 and 5.5).

DESCRIPTION

The site is characterised by a large mud-brick fort of Late Roman date, which was built upon an earlier cemetery (Charlier *et al.* 2012; Colin *et al.* 2000). The ceramic evidence demonstrates that the cemetery was in use from at least the end of Dynasty VI or the First Intermediate Period and continued in use until the Early Roman Period, with a significant amount of material datable to the Third Intermediate Period/ Dynasty XXV (Marchand 2012: 140). No pottery of Ptolemaic date has so far been reported.

Ptolemaic Period activity at Qaret el-Toub is perhaps demonstrated by the presence of five Ptolemaic bronze coins, which were discovered during excavation. The coins are identifiable by the presence of an eagle on the reverse and by the overall form (Van Heesch 2003: 532–533; 2012: 120). Four of the coins have been given a broad date of 3rd–1st century, while the fifth coin has been dated to the reign of Ptolemy V or VI (205–145 BCE) (Van Heesch 2012: 124). Three other bronze coins are dated as Ptolemaic or Early Roman (Van Heesch 2012: 125–126). The presence of these coins points to possible Ptolemaic activity at the site; however, further work is needed in order to clarify the exact nature of this activity.

BIBLIOGRAPHY

Charlier *et al.* 2012; Colin *et al.* 2000; Marchand 2012: 140; Van Heesch 2003; 2012.

B07. El-Bawiti (Temple of Bes)

LOCATION

The site is located in the northern part of Bahariya amongst the modern houses of el-Bawiti. It is situated approximately 1 km south-west of 'Ain el-Bishmu (B08) (FIGURES 5.4 and 5.5).

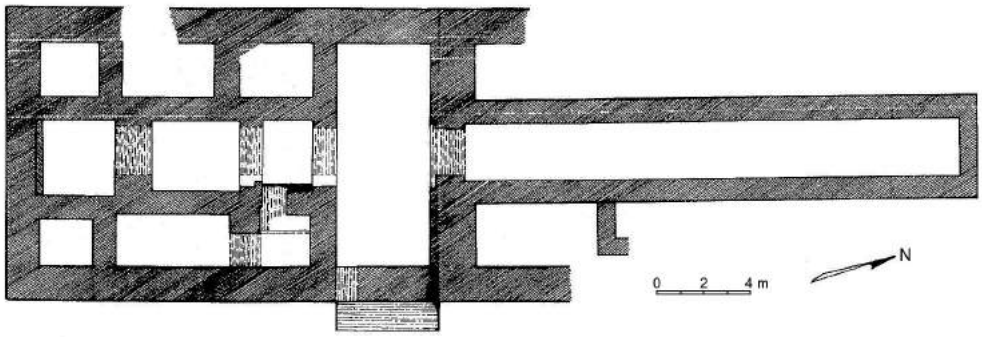


FIGURE A6.15 El-Bawiti: Plan of the Temple of Bes (after Hawass 2000: 170).

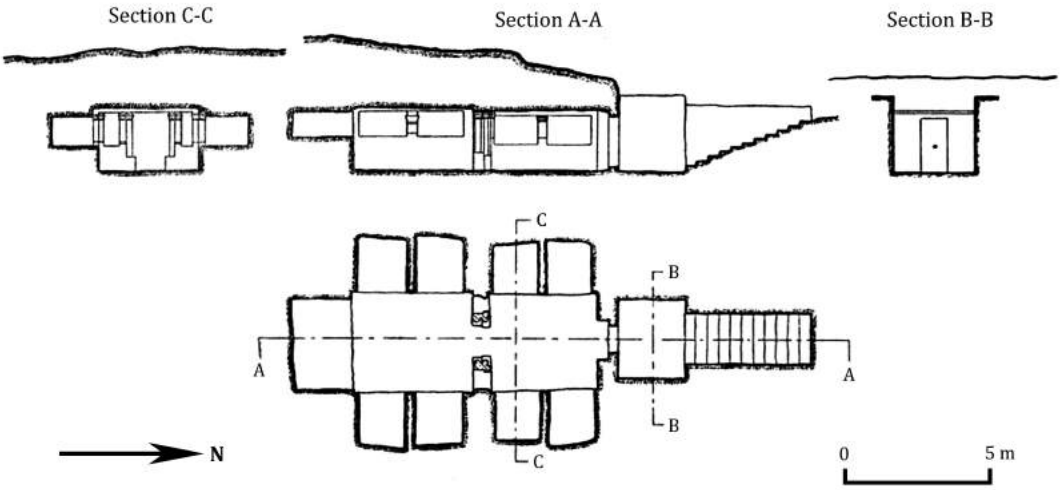


FIGURE A6.16 'Ain el-Bishmu: Plan of the excavated tomb (after Fakhry 1950: 84).

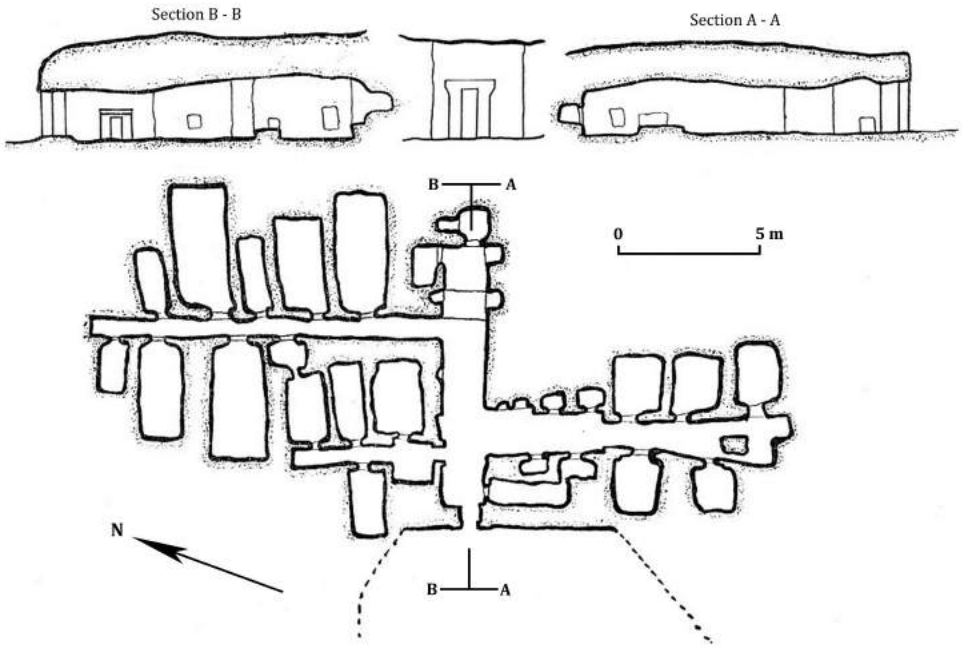


FIGURE A6.17 Qaret el-Faragi: Plan and section of the galleries (after Fakhry 1950: 27).

DESCRIPTION

This is a mud-brick temple measuring approximately 24 m in length, which is built on a limestone foundation (Hawass 2000: 172; FIGURE A6.15). Only the lower parts of the walls are preserved, but the overall plan and architectural style is Egyptian. A sphinx-lined causeway might have originally led up to the entrance on the north (Hawass 2000: 172–173).

A large painted sandstone statue depicting the god Bes, which measures four feet in height, was found in the sanctuary (Hawass 2000: 172–173). Based on the style, Hawass (2000: 172) dated it to the Ptolemaic Period. Other finds include a collection of copper vessels, a faience shabti, a statuette of Horus, and a sandstone game-board (Hawass 2000: 173). Based on the material remains, the temple appears to have been constructed in the Ptolemaic Period and continued to be used until the 4th century CE (Hawass 2000: 169).

BIBLIOGRAPHY

Hawass 2000: 169–173.

B08. ‘Ain el-Bishmu

LOCATION

The site is located in the northern part of Bahariya, on the northern edge of el-Bawiti (FIGURES 5.4 and 5.5).

DESCRIPTION

This is a cemetery comprising a number of rock-cut tombs. One tomb was excavated by Fakhry (1950: 83–84). The tomb is reached by a staircase and comprises two main chambers, surrounded by nine sub-chambers (FIGURE A6.16). The largest chamber measures 3.0 x 4.0 m. Painted and architectural decoration is preserved. Fakhry (1950: 83) dated the tomb stylistically to the end of the Ptolemaic Period.

BIBLIOGRAPHY

Fakhry 1950: 83–84.

B09. Qaret el-Faragi

LOCATION

This site is located in the northern part of Bahariya, in the southern part of el-Bawiti (FIGURES 5.4 and 5.5). It is situated on a long ridge that is also occupied by a modern cemetery and which is surrounded by modern houses.

DESCRIPTION

The site comprises a series of rock-cut galleries, which contain a large number of ibis and falcon burials (Fakhry 1974: 93). The central gallery, which measures 12.0 m long x 2.0 m wide, opens onto three long side galleries, which are in turn surrounded by small chambers (FIGURE A6.17). The entrance is located on the east and is inscribed with a hieroglyphic text, while drawings and Demotic texts are preserved on the walls of the main gallery (Fakhry 1950: 32; 1974: 94, 97).

The birds were mummified and places in sealed jars (Fakhry 1974: 93). Many objects were found in the tomb including stelae, fragments of stone statues, faience figures and amulets, jewellery, large numbers of bronze statuettes, and both wooden boxes and statue pedestals inlayed with glass (Fakhry 1950: 37; 1974: 93, 97). Based on the style of the inscriptions and the finds, Fakhry (1950: 32; 1974: 97) suggested that the tomb was in use from the early Ptolemaic Period, and possibly slightly earlier, and continued in use until the Early Roman Period.

BIBLIOGRAPHY

Fakhry 1950: 30–37; 1974: 65, 91–97.

B10. Temple of Herakles-Khonsu and Amun

LOCATION

The site is located in the northern part of Bahariya, just beyond the southern edge of el-Bawiti (FIGURES 5.4 and 5.5).

DESCRIPTION

This is a small temple dedicated to Herakles-Khonsu and Amun. Excavations by the SCA have revealed the plan of the temple, which comprises a gateway, a rectangular hall, and a sanctuary flanked by two side-chambers, all of which is surrounded by a temenos wall (Hawass 2000: 175). The temple is constructed of mud-brick on sandstone foundations, and is white-plastered. Excavations have yielded a large number of votive stelae (Hawass 2000: 175). One of these stelae, which is late Ptolemaic or Roman in date and is inscribed in hieroglyphic, Demotic and Greek, is dedicated to 'Amun-Re-Horus and Khonsu, the great god, lord of Djesdjes' (Labrique 2013: 256–257, 13.1.2.2, *div.* 15.2).

Based on the inscriptions preserved in the sanctuary, Hawass (2000: 181) dated the construction of the temple to the reign of Augustus, specifically 21 BCE; however, there appears to have been activity at the site already during the late Ptolemaic Period, as the surface pottery from in around the temple apparently dates from the end of the Ptolemaic Period to the Early Roman Period (Colin *et al.* 2000: 156).

BIBLIOGRAPHY

Colin *et al.* 2000: 156; Hawass 2000: 175–181; Labrique 2013.

B11. El-Gazayer

LOCATION

The site is located in the northern part of Bahariya, approximately 6 km east of el-Bawiti and south-east of Mandishah (FIGURES 5.4 and 5.5).

DESCRIPTION

This is a cemetery of rock-cut tombs situated along a ridge. Many of the tombs have been plundered and the surface of the site is littered with human bone, scraps of linen, fragments of wooden and pottery coffins, and pottery (Fakhry 1974: 105). Fakhry (1942: 35) noted that the surface pottery could be dated from the New Kingdom to the Ptolemaic Period, although no further details were published. He later suggested a Roman Period date for the cemeteries in this area (Fakhry 1974: 106).

BIBLIOGRAPHY

Fakhry 1942: 35; 1974: 105–106.

B12. Kom Abdel-Karim (Kom Gebrin)

LOCATION

The site is located in the northern part of Bahariya, approximately 2 km north-east of the village of Mandishah (FIGURES 5.4 and 5.5).

DESCRIPTION

This is a single-roomed mud-brick chapel with stone door jambs (FIGURE A6.18). The chapel measures approximately 5.0 x 10.0 m, and is preserved to around 60 cm in height (Fakhry 1950: 105). It is situated 39 m south of a two-roomed stone temple, which is uninscribed (Fakhry 1950: 103; 1974: 106). Finds include fragments of pottery, beads and ostraka, which are all possibly of Ptolemaic date according to Fakhry (1950: 105), although again, no further details were published.

BIBLIOGRAPHY

Fakhry 1950: 105; 1974: 106.

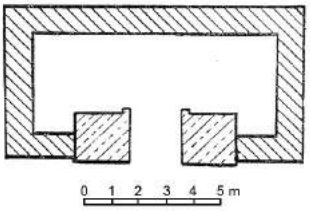


FIGURE A6.18 Kom Abdel-Karim: Plan of the chapel (after Fakhry 1950: 105).

SIWA OASIS

S01. Meshendid

LOCATION

The site is located in the western part of Siwa, approximately 12 km west of Siwa Town (FIGURE 5.6). It is situated along the south side of a ridge, less than 1 km west of Khamisah. There is a pass cut into the north-west side of the ridge which leads to the site.

DESCRIPTION

The site comprises approximately 150 rock-cut tombs. The tombs are relatively small in size and comprise only one or two chambers. No inscriptions are preserved. Fakhry (1944: 68) reported that the pottery appeared to be Ptolemaic in date, although no further details or illustrations were published.

Less than a kilometre from the tombs, Fakhry (1944: 68) reported finding traces of a stone building within the modern village, which he identified as a temple. No decoration or inscriptions were preserved, but based on its proximity to the tombs Fakhry suggested that it could also be of Ptolemaic date. It is conceivable that a settlement, perhaps of Ptolemaic date, was once located here; however, there is currently no clear evidence to support this.

BIBLIOGRAPHY

Fakhry 1944: 68.

S02. Gebel el-Mawta

LOCATION

The site is situated in the central part of Siwa on the northern edge of Siwa Town, approximately 2 km west-north-west of Aghurmi (S03) (FIGURE 5.6). The tombs are cut into the sides of a conical limestone hill.

DESCRIPTION

This site comprises a series of decorated rock-cut tombs. Some of the tombs combine both Greek and Egyptian style and iconography, most notably that of the high-ranking official Siamun (cf. Fakhry 1973: 192; Lembke 2004; Lembke and Minas 2006). Many of the tomb entrances are visible and a large number have been plundered over the years.

Based on the style of the decoration, Fakhry dated these tombs broadly between the 4th and 1st centuries (Fakhry 1973: 187–192). The tomb of the Siamun he dated to the 3rd century BCE (Fakhry 1973: 192); however, subsequent studies of the iconography suggest an Early Roman date for this tomb (Lembke 2004; Lembke and Minas 2006: 328).

Arthur Silva White visited Siwa in 1897 and examined this site (White 1899: 230–239). Whilst in the oasis he bought a coin and two metal ornaments that had apparently been found in these tombs. The ornaments were a bracelet and a rod, both made of silver, gold and copper. The coin was a Ptolemaic bronze depicting a ram on the obverse and an eagle and six-rayed star on the reverse, which can be dated to the reign of Ptolemy I (White 1899: 236–238).

BIBLIOGRAPHY

Fakhry 1944: 121–123, 134, 163, 170; 1973: 88, 173–206; Lembke 2004; Lembke and Minas 2006; White 1899: 230–239.

S03. Aghurmi (Temple of the Oracle)

LOCATION

The site is located in the central part of Siwa, to the east of Siwa Town and approximately 2 km from both Gebel el-Mawta (S02) and Gebel Dakrur (S04) (FIGURE 5.6). It is situated on the top of a large limestone outcrop which measures 120 x 80 m and 20–25 m high, and which is accessible on the south. The temple itself is located on the north-west side of the outcrop.

DESCRIPTION

The Temple of the Oracle, dedicated to Ammon, was originally built under Amasis (Fakhry 1944: 91; 1973: 158; Kuhlmann 2002: 161; 2011: 2, 6; 2013: 157). Alexander the Great famously visited the oracle in 331 BCE (Diodorus Siculus XVII: 49.2–6, Arrian III.3–4; cf. CHAPTER 5.5). The temple is made of sandstone and measures 34.5 m long and 10–15 m wide. It comprises a sanctuary (3.3 x 6.1 m) that is preceded by two pillared-halls and a forecourt (FIGURE A6.19). It appears that the temple was built in an Egyptian style, but by Greek architects (Kuhlmann 2011: 6; 2013: 157). There is currently no evidence for Ptolemaic additions to the temple itself; however, Fakhry (1973: 163 and Fig. 52) found a limestone stela with Greek text dating to the 2nd century BCE built into a modern wall at the site. Furthermore, Pausanias mentioned seeing an altar of Ptolemy I during his visit:

> *Pindar sent a 'Hymn to Ammon' to the Ammonians in Libya, which in my time still survived on a triangular stone tablet beside the altar that Ptolemy son of Lagos dedicated to Ammon.*
>
> (Pausanias IX: 16/1, trans. Levi 1971)

Additional features found on the acropolis include a palace located adjacent to and west of the temple, a well located to the south, and a building of uncertain function located to the east (FIGURE A6.2; Fakhry 1973: 160–161; Kuhlmann 2011: 5). The temple and acropolis form part of the larger Ammoneion complex, along with the temple of Umm Ubaydah, which is located south of Aghurmi and is linked to it via a causeway (Kuhlmann 2010a; 2010b; 2011: 5; 2013: 158). Traces of a possible Doric style temple, which was originally located beside this causeway, have also been discovered and it is thought that this building may date to the Ptolemaic or Roman period (Kuhlmann 2011: 5).

Kuhlmann (2011: 9) noted that the excavations have yielded local imitations of Greek pottery, as well as several Greek votive stelae made of local stone. The stelae are mostly Ptolemaic in date and were probably manufactured by people from Cyrenaica who were living in Siwa.

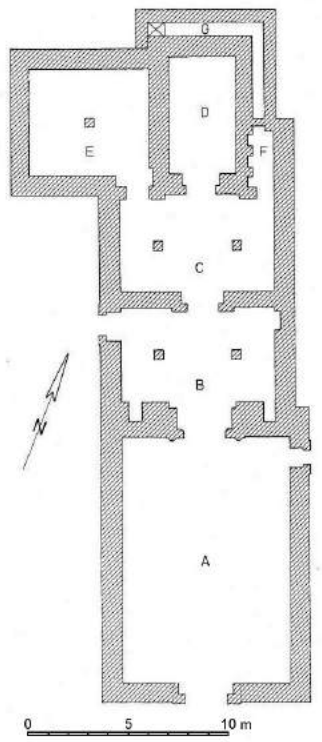


FIGURE A6.19 Aghurmi: Plan of the Temple of the Oracle (after Kuhlmann 1988: 16).

BIBLIOGRAPHY

Fakhry 1944: 86–91; 1973: 143–164; Kuhlmann 1988; 2010a; 2010b; 2011; 2013: 157–158.

S04. Gebel al-Dakrur

LOCATION

The site is located in the central part of Siwa, approximately 2 km south-east of Aghurmi (S03) (FIGURE 5.6). It is situated on the sides and top of a large hill.

DESCRIPTION

This is a cemetery comprising a number of rock-cut tombs, which are generally larger and of a different plan to those at Gebel el-Mawta (Fakhry 1973: 125). One of these comprises a large chamber with six pillars, while another comprises four columns with papyrus capitals (Fakhry 1973: 124–125).

There is a limestone quarry near the top of the hill that appears to have been used in antiquity (Fakhry 1973: 125). Ptolemaic graffiti have been discovered at this quarry, which mention a Greek stonemason and an 'encaustic painter'; these have been dated epigraphically to the late 4th or early 3rd century BCE (Kuhlmann 1998: 166; 2011: 9). Fakhry (1973: 125) dated the cemetery to the Ptolemaic Period or earlier, whilst the graffiti indicate that the quarry was also in use during this period.

BIBLIOGRAPHY

Fakhry 1973: 124–125; Kuhlmann 1998; 2011.

S05. 'Ain Qurayshat

LOCATION

The site is located in the eastern part of Siwa, on the north-east shore of Lake Zeitun (FIGURE 5.6). It is situated approximately 4 km north-west of Abu Shuruf (S07) and is adjacent to Qasr el-Gashsham (S06).

DESCRIPTION

This is a cemetery comprising a number of plundered tombs, which were once associated with a large settlement and temple (S07). A small number of antiquities were discovered in the tombs during reclamation work at the beginning of the twentieth century (Fakhry 1973: 88, 114). Excavations conducted more recently by the SCA have revealed coins ranging in date from Ptolemy I Soter through to Antoninus Pius (Heinzelmann 2009: 1; Kuhlmann 1998: 167). Fakhry (1973: 22) described the spring as the largest in the oasis, which further emphasises the importance of the settlement associated with this site.

BIBLIOGRAPHY

Fakhry 1973; Heinzelmann 2009; Kuhlmann 1998: 167.

S06. Qasr al-Gashsham

LOCATION

The site is located in the eastern part of Siwa, on the north-east shore of Lake Zeitun (FIGURE 5.6). It is situated on a mound adjacent to 'Ain Qurayshat (S05), and is 4 km north-west of Abu Shuruf (S07).

DESCRIPTION

This site comprises a settlement and temple and is associated with the cemetery of 'Ain Qurayshat (S05). The walls of the temple were still standing when Steindorff visited in 1900, but by 1970 almost nothing was left (Fakhry 1973: 130). Fakhry (1973: 129) thought it probably dated to the late Ptolemaic Period, presumably based on the fact that Steindorff (1904: 125) described the temple as combining both Greek and Egyptian architectural elements. Several houses are located adjacent to the temple on the east side; finds from these include pottery and glass of Greek style (Fakhry 1944: 74).

BIBLIOGRAPHY

Fakhry 1944: 73–74; 1973: 129–130; Steindorff 1904: 125.

S07. Abu Shuruf

LOCATION

The site is located in the eastern part of Siwa, on the east bank of Lake Zeitun and is partially covered by the modern village. It is located 4 km south-east of 'Ain Qurayshat (S05), and 4.5 km north-west of el-Zeitun (S08) (FIGURE 5.6).

DESCRIPTION

The site comprises an extensive settlement and a cemetery. The full extent of the settlement is unknown, as the site is partly covered by the modern village, although it appears to have been substantial. Fakhry (1944: 74–75; 1973: 130) excavated a stone building with vaulted ceilings, which he interpreted as a temple; however, this has since been identified as a house (Heinzelmann and Buess 2011: 73; FIGURE A6.20).

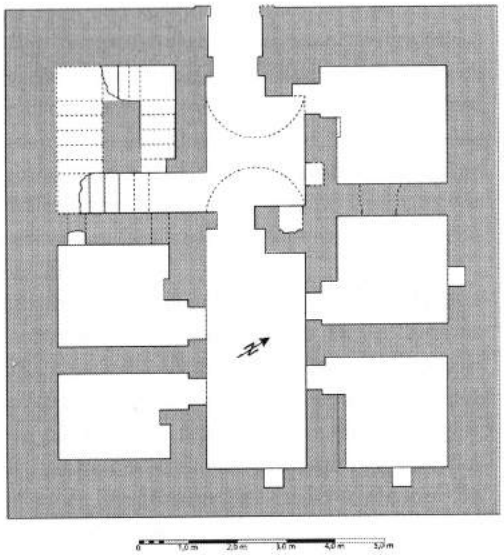


FIGURE A6.20 Abu Shuruf: Plan of the house (after Heinzelmann and Buess 2011: Fig. 6).

Excavations conducted by the SCA in 2000 revealed a structure containing several oil-presses, apparently dating to the Late Roman Period (Heinzelmann 2009: 2). Recent geophysical survey has detected the outlines of domestic structures, as well as individual streets (Heinzelmann 2009: 3). A cemetery is located approximately 100 m to the south of the settlement (Fakhry 1973: 132). The settlement is dated to the Ptolemaic and Roman periods based on the surface remains (Heinzelmann 2009: 2–3).

BIBLIOGRAPHY

Fakhry 1944: 74–75; 1973: 130; Heinzelmann 2009; Heinzelmann and Buess 2011.

S08. El-Zeitun

LOCATION

The site is located in the eastern part of Siwa, on the south-east bank of Lake Zeitun. It is situated approximately 4.5 km south-east of Abu Shuruf (S07) and 2.5 km south-west of Abul-Awwaf (S09) (FIGURE 5.6).

DESCRIPTION

The site comprises a large settlement and an associated cemetery, all of which is covered by the remains of an abandoned village of the 19th and 20th centuries. Geophysical survey has revealed much of the layout of the settlement, which includes an area of closely-packed domestic structures of irregular plan, clustered around an open square, as well as a series of larger isolated domestic buildings to the north (Heinzelmann 2009: 2–3). Based on the surface remains, which include pottery, glass and faience, the settlement dates to the Ptolemaic and Roman periods (Heinzelmann 2009: 1–3).

Fakhry (1944: 79–80; 1973: 133) excavated part of a stone building, which he identified as a temple; however, this building has since been identified as a tomb-chapel (Heinzelmann and Buess 2011: 74–75). The building measures 8.8 x 4.2 m, and 3.2 m high and is built of limestone with a vaulted ceiling (FIGURE A6.21). The entrance is Egyptian in style (cavetto with winged sun-disk, unfinished) and numerous decorated stone blocks have been reused within the walls. The tomb-chapel is probably late Ptolemaic or Roman in date based on parallels from the Nile Valley (Heinzelmann and Buess 2011: 75).

Several cemeteries are associated with this settlement. A small cemetery is located 200 m to the west, while a second is located approximately 400 m north-west (Fakhry 1973: 134). Another larger cemetery located approximately 2 km to the south comprises a number of rock-cut tombs, along with two preserved

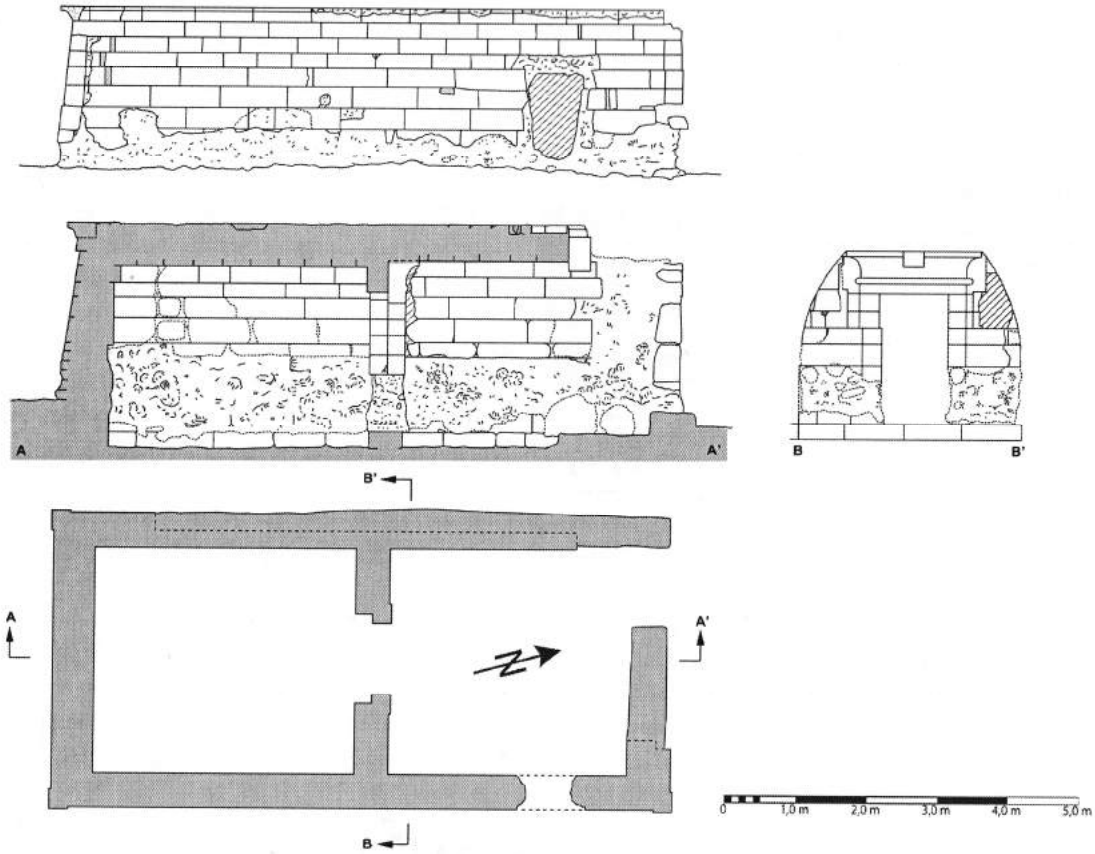


FIGURE A6.21 El-Zeitun: Plan of the tomb-chapel (after Heinzelmann and Buess 2011: Fig. 7).

stone chapels like those at Abul-Awwaf (S10) only larger (Fakhry 1973: 134–135). Fakhry (1944: 45) proposed that these cemeteries were in use during the Ptolemaic Period.

BIBLIOGRAPHY

Fakhry 1944: 45, 79–80; 1973: 133–135; Heinzelmann 2009; Heinzelmann and Buess 2011.

S09. Abul-Awwaf

LOCATION

The site is located in the eastern part of Siwa, to the east of Lake Zeitun. It is situated on a stone ridge, approximately 2.5 km northeast of el-Zeitun (S08) (FIGURE 5.6).

DESCRIPTION

The site comprises a series of rock-cut tombs, some with associated stone chapels. Four chapels are semi-preserved and are constructed of limestone blocks coated with plaster (Fakhry 1944: 76–79; 1973: 132), similar to the tomb-chapel at El-Zeitun.

Chapel 1: Measures 8.5 x 13.0 m and comprises a large hall (5.5 x 7.9 m) with three small adjacent rooms (FIGURE A6.22). Doors were originally fixed to the entrances. The hall and rooms were roofed. The entrance is located in the north wall and there is also a doorway in the east wall which leads to a terrace. The entire structure is built over a platform.

Chapel 2: Located west of Chapel 1. Measures 8.4 x 6.1 m and comprises two halls with an entrance on the west.

Chapel 3: Located 70 m north of Chapel 1. Measures 6.3 x 11.1 m and comprises two chambers with an entrance on the south (FIGURE A6.23).

Chapel 4: Located behind and 2 m west of Chapel 3. Measures 6.5 x 11.5 m and comprises two chambers with an entrance on the south (FIGURE A6.23).

Finds from the tombs include wooden coffins with glass inlays (Fakhry 1944: 79). Steindorff (1904: 132–133) excavated some of the tombs and recovered a range of objects including painted coffins. Fakhry (1973: 132) dated the cemetery to the second half of the Ptolemaic Period, presumably on the basis of the coffins and associated finds. This cemetery may be connected to the settlements of El-Zeitun (S08) and Abu Shuruf (S07).

BIBLIOGRAPHY

Fakhry 1944: 76–79; 1973: 132. Steindorff 1904: 132–133.

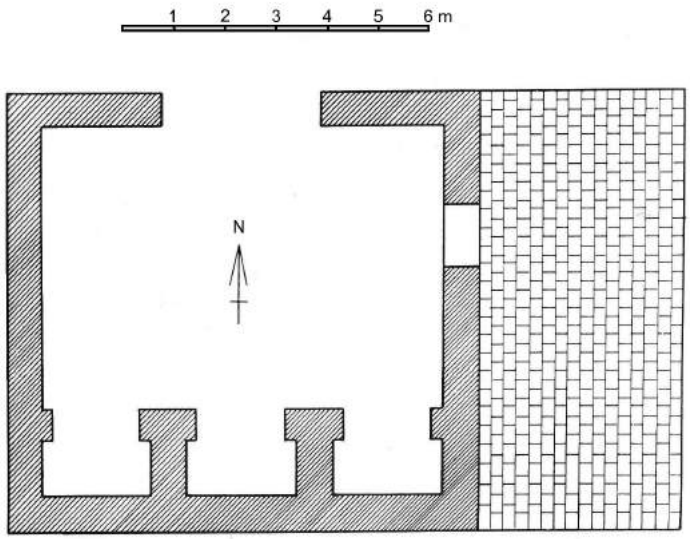


FIGURE A6.22 Abul-Awwaf: Plan of Chapel 1 (after Fakhry 1944: 76).

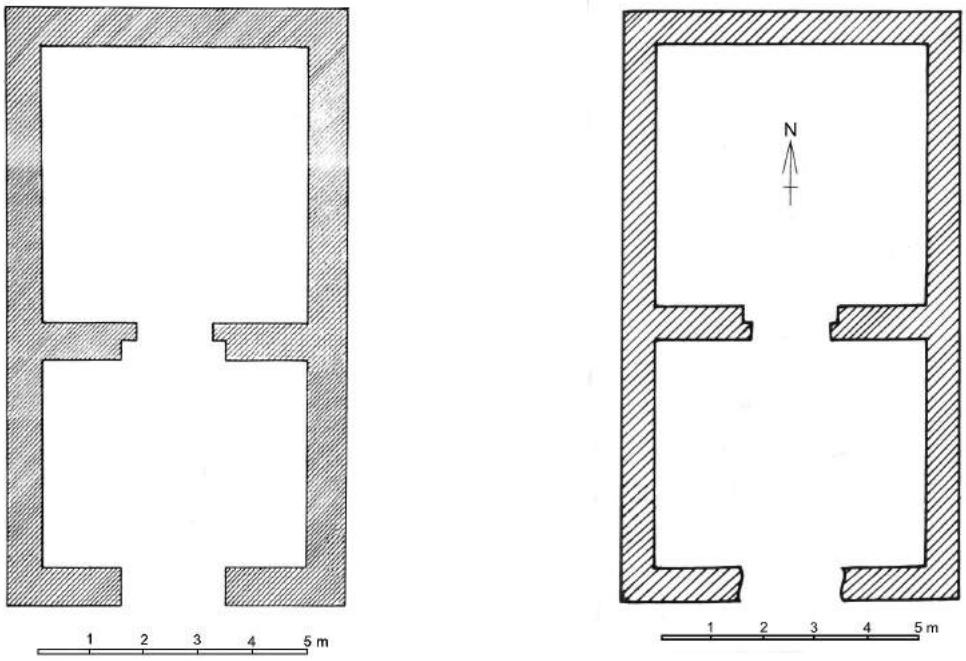


FIGURE A6.23 Abul-Awwaf: Plan of Chapels 3 (left) and 4 (right) (after Fakhry 1944: 77).

MINOR OASES AND ISOLATED SITES

M01. Jaghbub

LOCATION

This is a small oasis located approximately 100 km west of Siwa Oasis, on the modern Libyan-Egyptian border (FIGURE 5.7).

DESCRIPTION

The oasis of Jaghbub comprises four smaller oases, namely ‘Ain Buzaid, El-Malfa, El-Fredga and Jaghbub (Fadel Ali 2007: 1–4). Rock-cut tombs are found in the surrounding hillsides of all four areas. The tombs at ‘Ain Buzaid are similar to those found at Siwa; both single- and multi-chambered tombs are present (Fadel Ali 2007: 4). Some of the tombs were originally sealed with wooden doors (Fadel Ali 2007: 5). Mummified bodies are found in many of the tombs, some with very elaborate cloth wrappings, as well as a range of tomb goods, including wooden funerary couches, pottery and basketry (Fadel Ali 2007: 5; Wright 1997: 33–34). Nabataean style pottery was also noted in some of the tombs at El-Melfa (Wright 1997: 34). In general, the tombs at El-Jaghbub are of similar appearance to those found in Siwa and appear to be of Ptolemaic and Roman date (Fadel Ali 2007; Wright 1997). Radiocarbon-dating carried out on a sample of wood from one tomb at Jaghbub yielded a date range of 196 BCE to 126 CE (Fadel Ali 2007: 1).

A ruined stone mausoleum was found approximately 20 km south of Jaghbub, on the west side of El-Fredga. This is comparable to the Germa Mausoleum in the Fezzan and is possibly of Hellenistic date (Fadel Ali 1995: 152; 2007: 10; for the Germa Mausoleum, see El-Rashdy 1986: 86–88).

BIBLIOGRAPHY

Fadel Ali 1995; 2007; Wright 1997.

M02. El-Areg

LOCATION

This is a small oasis located approximately 50 km east-south-east of Siwa Oasis. The oasis comprises two springs surrounded by vegetation, and is bounded by escarpments (FIGURE 5.7).

DESCRIPTION

This site comprises a series of rock-cut tombs, which are situated in the escarpment on either side of one of the springs. Both single- and multi-chambered tombs are present, many of which were originally sealed with wooden doors, and some of which contain sarcophagi (Fakhry 1939a: 610, 618). When Jennings-Bramly (1897: 607) explored the tombs, thirty-six had been opened and many contained bodies, some wrapped in linen. Fakhry (1939a; 1973: 138) visited in 1938 and counted forty-two open tombs as well as many more covered by sand. He noted that most of the tombs are undecorated, while a few larger tombs preserve painted scenes; the entrances to many of the tombs are carved in typical Egyptian fashion and topped with a row of uraei. Based on the style of the decoration, Fakhry (1939a: 614, 617) proposed that the tombs were initially used during the Ptolemaic and Roman periods.

No settlement remains have been discovered; however, Rohlfs (1875: 194–195) reported that he found the remains of a temple with twelve columns and a floor paved with marble slabs. No other visitor reported seeing this temple, including Fakhry (1973: 140) who looked for it; however, Fakhry proposed that it could be hidden under the windblown sand that covers much of the ground around the tombs.

BIBLIOGRAPHY

Fakhry 1939a; 1973: 138–140; Jennings-Bramly 1897: 607; Rohlfs 1875: 194–195.

M03. Bahrein

LOCATION

This is a small oasis located approximately 100 km south-east of Siwa Oasis and approximately 230 km west of Bahariya Oasis. It comprises two salt lakes about 7 km apart, each partly surrounded by small areas of vegetation. The lakes are bordered on the north by an escarpment 150 m high and on the south by a series of sand dunes. Bahrein is located approximately 9 km west of Nuwemisah (FIGURE 5.7).

DESCRIPTION

This site comprises the remains of a stone temple and a number of square rock-cut tombs, which are located in the escarpment above the western lake. Fakhry (1973: 137) visited the tombs and described them as small and undecorated. He dated them to between the 1st century BCE and the 2nd century CE. De Cosson (1937: 227) identified both caves and rock-cut tombs in the escarpment. He noted that the tombs had been plundered and were originally sealed with stone slabs that could be found near the entrances. He also noted the presence of potsherds within an isolated cave on the south-east of the escarpment. De Cosson (1937: 226) suggested that the tombs were Ptolemaic, although it is not clear what evidence this is based on.

In 2003 an Italian mission from the University of Turin began excavating the remains of a limestone temple, which is located beside one of the lakes (Gallo 2003; 2006). This temple was originally identified through geophysical survey, conducted by an Egyptian mission (Kuhlmann 2002: 159). The temple, which is dedicated to the god Amun-Re amongst others, is built in a traditional Egyptian style with a tripartite shrine and a hypostyle hall of six columns (Gallo 2003; 2006: 14; FIGURE A6.24). It is approximately 20 m long and 8.5 m wide and is oriented north-south with an entrance on the south. The sanctuary was probably constructed during Dynasty XXX, as the inscriptions include the names of both Nectanebo I and the Libyan king Wenamun (Gallo 2006: 14). The hypostyle hall appears to have been a Ptolemaic addition, as a fragmentary cartouche of Ptolemy II was found in the rubble fill (Gallo 2003; 2006: 15). The temple was elaborately decorated in typical Egyptian fashion with painted and carved scenes of the king offering to the gods.

BIBLIOGRAPHY

De Cosson 1937: 226–227; Fakhry 1973: 137; Gallo 2003; 2006; Kuhlmann 2002: 159.

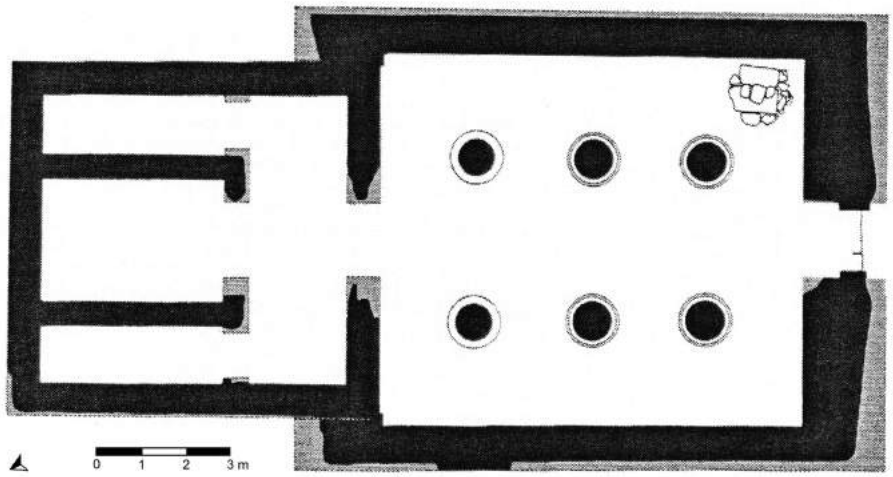


FIGURE A6.24 Bahrein: Plan of the temple (after Gallo 2006: Fig. 4).

M04. Nuwemisah

LOCATION

This is a small oasis located approximately 100 km south-east of Siwa Oasis and approximately 230 km west of Bahariya Oasis. It is located close to Bahrein which lies 9km to the west. Nuwemisah is much like Bahrein in that it comprises two small salt lakes surrounded by a small amount of vegetation. To the north is an escarpment, while the south is bordered by sand dunes (FIGURE 5.7).

DESCRIPTION

This site is much like el-Areg and Bahrein, in that it comprises rock-cut tombs. Fakhry (1973: 137) described them as small and undecorated, and dated them to between the 1st century BCE and the 2nd century CE. De Cosson (1937: 227) visited and described these tombs as a series of caves in the northern escarpment. On the slopes below these caves he found a worked stone tool and a single pottery vessel. From the photograph (De Cosson 1937: Pl. XXIII) the vessel appears to be a single-handled pitcher with a modelled rim and ring-base (compare Form 69, although with different base). The surface seems to be black or red and polished, although it is unclear whether or not this is an import; the vessel is a common Hellenistic form. It is not clear whether the caves represent dwellings or tombs, or whether the vessel in fact originated from within the caves. Due to the close proximity of this oasis to Bahrein, where there are both tombs and a temple, it is likely that this oasis was similarly occupied during the Ptolemaic Period.

BIBLIOGRAPHY

De Cosson 1937: 227, Pl. XXIII; Fakhry 1973: 137.

M05. Abu Gerara

LOCATION

This site is located approximately half-way between Dakhleh and Asyut, close to where the Darb el-Tawil passes over the Abu Gerara escarpment (FIGURE 5.7).

DESCRIPTION

This site is a rest station on the route linking Dakhleh with the Nile Valley. Harding-King visited the site and noted the remains of several buildings. He conducted excavations in order to ascertain the plan of the buildings and retrieved copper coins, pottery, metal and fragments of purple glass, all of which he dated to the Ptolemaic Period (Harding-King 1913: 457; 1925: 211, 214). Harding-King (1913: 457) noted the presence of several dried-up wells and found the remains of palm trunks built into the walls of the buildings, indicating that water was available here in antiquity. He proposed that the site was a small military station built to protect the wells, but there does not appear to be any evidence that the site had a military function.

BIBLIOGRAPHY

Eichhorn *et al.* 2005: 220; Giddy 1987: 12; Harding-King 1913: 456–457; 1925: 206, 211, 214.

M06. ‘Ain Amur

LOCATION

The site is located on the escarpment approximately halfway between Dakhleh and Kharga, on the Darb ‘Ain Amur caravan route (FIGURE 5.7).

DESCRIPTION

The site comprises a sandstone temple surrounded by an irregular mud-brick enclosure, as well as several settlement areas, an industrial area and a cemetery (FIGURE A6.25; Rossi and Ikram 2010: 240). The temple measures 23.0 x 9.0 m, and preserves both painted and carved decoration in places (Fakhry 1941a; Rossi 2000: 339; Winlock 1936: 48–49; FIGURE A6.26). The god Amun-Re can be identified within the shrine. A stone gateway is located in the enclosure wall opposite the temple entrance. The enclosure wall

measures approximately 80 m long on its northern side and is preserved up to 12 m high in places. A well is located inside the enclosure. Traces of structures, which have been interpreted as either habitations or administrative buildings, are located on the north-west side of the temple enclosure, while additional areas of settlement have been found on the eastern and southern sides (Rossi and Ikram 2010: 240–241). An area to the south-east of the temple enclosure has been interpreted as an industrial area, based on finds of slag and large ashy deposits (Rossi and Ikram 2010: 240).

POTTERY

The NKOS team has collected a sample of pottery from the surface of the site. The majority of this pottery has been dated to the Ptolemaic through to Late Roman Periods (Ikram and Rossi 2006). Winlock (1936: 50) reported seeing mounds of potsherds within the temple enclosure. Most of the published forms appear to be of Roman date, although a sherd from a keg with a collared rim is probably Ptolemaic (Winlock 1936: Pl. VI, no.10; cf. Form 97).

BIBLIOGRAPHY

Fakhry 1941a; Ikram and Rossi 2006; Rossi 2000: 339; Rossi and Ikram 2010; Winlock 1936: 48–50.

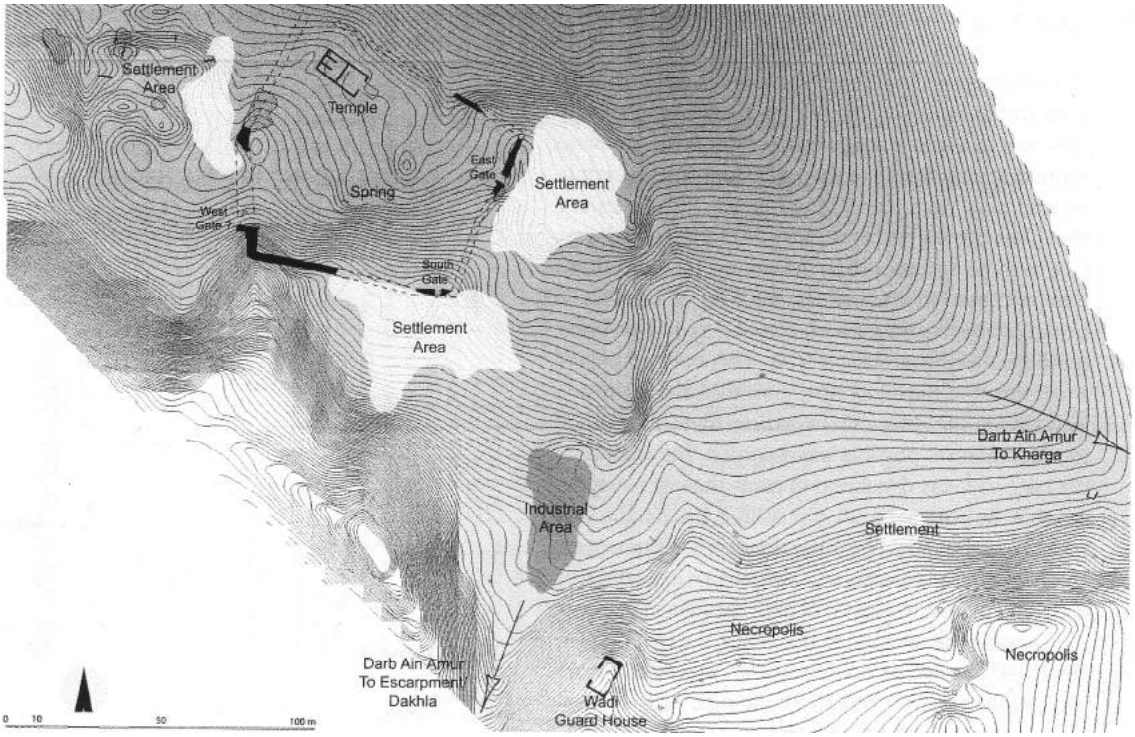


FIGURE A6.25 'Ain Amur: General map of the site (after Rossi and Ikram 2010: Fig. 4).

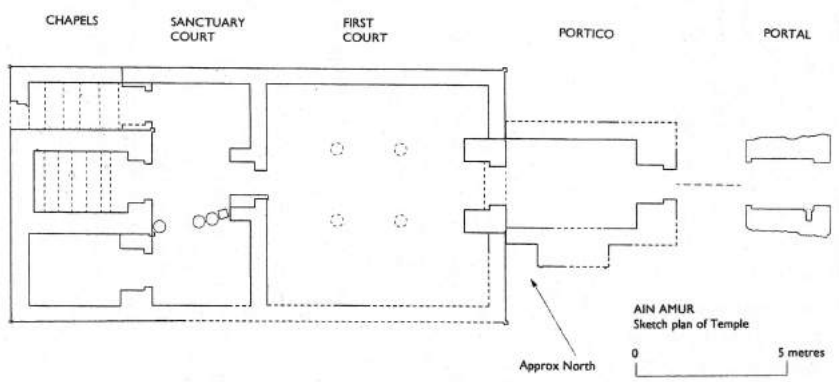


FIGURE A6.26 'Ain Amur: Plan of the temple (after Rossi and Ikram 2010: Fig. 3).

BIBLIOGRAPHY

ADAMS, W. Y., 1988, The Nile Trade in Post-Pharaonic Times, *Sahara* 1: 21–36.

ALCOCK, S. E., J. E. GATES and J. E. REMPEL, 2003, Reading the Landscape: Survey Archaeology and the Hellenistic *Oikoumene*, in A. Erskine (ed.), *A Companion to the Hellenistic World*, Blackwell Publishing, Oxford, 354–372.

ARNOLD, D., 1999, *Temples of the Last Pharaohs*, Oxford University Press, New York and Oxford.

ASTON, D. A. 1998, *Qantir I. Die Keramik des Grabungsplatzes QI: Volume I, Corpus of Fabrics, Wares and Shapes*, Philipp von Zabern, Mainz.

ASTON, D. A., 1999a, *Elephantine XIX: Pottery from the Late New Kingdom to the Early Ptolemaic Period*, Philipp von Zabern, Mainz.

ASTON, D. A., 1999b, Pottery, New Kingdom to Ptolemaic Period, in K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*, Routledge, London and New York, 765–769.

ASTON, D. A., 2007, Amphorae, Storage Jars and Kegs from Elephantine: A Brief Survey of Vessels from the Eighth-Seventh Centuries BC to the Seventh-Eighth Centuries AD, *CCÉ* 8.2: 419–445.

ASTON, D. A. and B. G. ASTON, 2003, The Dating of Late Period Bes Vases, in C. A. Redmount and C. A. Keller (eds), *Egyptian Pottery: Proceedings of the 1990 Pottery Symposium at the University of California, Berkleley*, University of California, Berkeley, 95–113.

ATYA, M. A., H. KAMEI, A. M. ABBAS, F. A. SHAABAN, A. GH. HASSANEEN, M. A. ABDALLA, M. N. SOLIMAN, Y. MARUKAWA, T. AKO and Y. KOBAYASHI, 2005, Complementary Integrated Geophysical Investigation around Al-Zayyan Temple, Kharga Oasis, Al-Wadi Al-Jadeed (New Valley), Egypt, *Archaeological Prospection* 12: 177–189.

AUFDERHEIDE, A. C., L. CARTMELL and M. ZLONIS, 2003, Bio-anthropological Features of Human Mummies from the Kellis 1 Cemetery: The Database for Mummification Methods, in G. E. Bowen and C. A. Hope (eds), *The Oasis Papers 3: Proceedings of the Third International Conference of the Dakhleh Oasis Project*, Oxbow Books, Oxford, 137–151.

AUFRÈRE, S., 2000, La liste des sept oasis d'Edfou, *BIFAO* 100: 79–127.

AUFRÈRE, S., J.-CL. GOLVIN and J.-CL. GOYON, 1994, *L'Égypte Restituée, Tome 2: Sites et temples des déserts*, Editions Errance, Paris.

AUSTIN, M. M. (ed.), 2006, *The Hellenistic World from Alexander to the Roman Conquest: A Selection of Ancient Sources in Translation*, Second Edition, Cambridge University Press, Cambridge.

BAGNALL, R. S., 1976, *The Administration of the Ptolemaic Possessions outside Egypt*, Brill, Leiden.

BAGNALL, R. S., 1997, *The Kellis Agricultural Account Book*, Oxbow Books, Oxford.

BAGNALL, R. S., N. ARAVECCHIA, R. CRIBIORE, P. DAVOLI, O. KAPER and S. MCFADDEN, 2015, *An Oasis City*, Institute for the Study of the Ancient World, NYU Press, New York.

BAGNALL, R. S. and P. DAVOLI, 2011, Archaeological Work on Hellenistic and Roman Egypt, 2000–2009, *AJA* 115: 103–157.

BAGNALL, R. S. and P. DEROW (eds) (trans.), 2004, *The Hellenistic Period: Historical Sources in Translation*, Blackwell Publishing, Malden.

BAGNALL, R. S. and D. W. RATHBONE (eds), 2004, *Egypt from Alexander to the Copts: An Archaeological and Historical Guide*, British Museum Press, London.

BAGNALL, R. S. and G. R. RUFFINI, 2012, *Amheida I, Ostraka from Trimithis, Volume 1: Texts from the 2004–2007 Seasons*, New York University Press and Institute for the Study of the Ancient World, New York.

BAGNALL, R. S., K. A. WORP and J. TAIT, 2002, An Inscribed Pedestal from the Temple of Tutu, in C. A. Hope and G. E. Bowen (eds), *Dakhleh Oasis Project: Preliminary Reports on the 1994–1995 to 1998–1999 Field Seasons*, Oxbow Books, Oxford, 49–51.

BAILEY, D., 2011, Drinking-Goblets and Table Amphorae: Groups of Ptolemaic Painted Pottery, *CCÉ* 9: 71–93.

BALL, J., 1927, Problems of the Libyan Desert (continued), *GJ* 70/2: 105–128.

BALLET, P., 1998, Cultures matérielles des déserts d'Egypte sous le Haut et le Bas-Empire: Productions et échanges, in O. E. Kaper (ed.) *Life on the Fringe: Living in the Southern Egyptian Deserts during the Roman and early-Byzantine Periods*, CNWS Publications 71, Leiden, 31–54.

BALLET, P., 2002, Les productions céramique d'Égypte à la période hellénistique: Les indices de l'hellénisation, in F. Blonde, P. Ballet and J.-F. Salles (eds), *Céramiques hellénistiques et romaines*, Maison de l'Orient Méditerranéen, Lyon, 85–96.

BALLET, P., 2004, The Graeco-Roman Pottery Workshops of Buto, *EA* 24, 18–19.

BALLET, P., F. BÉGUIN, G. LECUYOT, and A. SCHMITT, 2006, De nouvelles techniques céramiques à Bouto?, in B. Mathieu, D. Meeks and M. Wissa (eds), *L'apport de l'Egypte a l'histoire des techniques: Methodes, chronologie et comparisons*, Institut Français d'Archaéologie Orientale, 15–30.

BALLET, P. and M. VICHY, 1992, Artisanat de la céramique dans l'Égypte hellénistique et romaine: Ateliers du Delta, d'Assouan et de Kharga, *CCÉ* 3: 109–119.

BALLET, P. and T. VON DER WAY, 1993, Exploration archéologique de Bouto et de sa région (époques romaine et byzantine), *MDAIK* 49: 1–22.

BARD, K. A., 2008, *An Introduction to the Archaeology of Ancient Egypt*, Blackwell Publishing, Malden.

BARRETT, C. E., 2015, Terracotta Figurines and the Archaeology of Ritual: Domestic Cult in Greco-Roman Egypt, in S. Huysecom-Haxhi and A. Muller (eds), *Figurines grecques en context: Présence muette dans le sanctuaire, la tombe et la maison*, Presses Universitaires du Septentrion, Villeneuve d'Ascq.

BASHENDI, M., 2012, Cemeteries in Dakhleh, in R. S. Bagnall, P. Davoli and C. A. Hope (eds), *The Oasis Papers 6: Proceedings of the Sixth International Conference of the Dakhleh Oasis Project*, Oxbow Books, Oxford, 249–261.

BASHENDI, M., 2013, A Roman Period Tomb with a Pyramidal Superstructure in Bir el-Shaghala (Mut, Dakhla Oasis), *BIFAO* 113: 51–80.

BERLIN, A. M., 1997, The Pottery from the Northwest and North Areas, in A. Leonard Jr, (ed.) *Ancient Naukratis: Excavations at a Greek Emporium in Egypt, Part I: The Excavations at Kom Ge'if*, Annual of the American Schools of Oriental Research 54, 136–285.

BERLIN, A. M., 2001, Naukratis/Kom Hadid: A Ceramic Typology for Hellenistic Lower Egypt, in A. Leonard Jr, (ed.) *Ancient Naukratis: Excavations at a Greek Emporium in Egypt, Part II: The Excavations at Kom Hadid*, Annual of the American Schools of Oriental Research 55, 26–163.

BERLIN, A. M., 2013, Something Old, Something New: Native Cultures under Ptolemaic Rule, in N. Fenn and C. Römer-Strehl (eds), *Networks in the Hellenistic World: According to the Pottery in the Eastern Mediterranean and Beyond*, Archaeopress, Oxford, 229–237.

BERMANN, R. A., 1934, Historic Problems of the Libyan Desert, *GJ* 83/6: 456–463.

BIETAK, M. and E. REISER-HASLAUER, 1978, *Das Grab des 'Anch-Hor: Obersthofmeister der Gottesgemahlin Nitokris, Vol. I*, Österreichischen Akademie der Wissenschaften, Vienna.

BINGEN, J., 2007, *Hellenistic Egypt: Monarchy, Society, Economy, Culture*, University of California Press, Berkeley and Los Angeles.

BOOZER, A. L., 2013, Archaeology on Egypt's Edge: Archaeological Research in the Dakhleh Oasis, 1819–1977, *Ancient West and East* 12: 177–156.

BOWEN, G. E., 2009, The Church of Deir Abu Metta, Dakhleh Oasis: A Report on the 2009 Excavation, *BACE* 20: 7–25.

BOWMAN, A. K., 1986, *Egypt after the Pharaohs: 332 BC – AD 642, From Alexander to the Arab Conquest*, Guild Publishing, London.

BRECCIA, E., 1912, *Le Nicropoli di Sciatbi, Volume 1*, Institut Français d'Archéologie Orientale, Cairo.

BRONES, S., 2004, *La céramique d'El Deir: première approche,* at www.alpha-necropolis.com/articles.php?zone=deir&cmd=lire&id=11, accessed 29 October 2009.

BRONES, S., 2010, La céramique, in F. Dunand, J.-L. Heim, R. Lichtenberg, S. Brones and F. Letellier-Willemin, *El-Deir Nécropoles I, La nécropole Sud*, Cybele, Paris, 179–190.

BRUNTON, G., 1930, *Qua and Badari III*, British School of Archaeology in Egypt, London.

BRUNTON, G., 1937, *Mostagedda and the Tasian Culture*, Bernard Quaritch, London.

BUONGARZONE, R., 2012, Alcune considerazioni sulle tipologie di sepoltura a Farafra in epoca storica, *Egitto e Vicino Oriente* XXXV: 143–164.

BUONGARZONE, R. and S. DE ANGELI, 2011, L'oasi di Farafra. Documentazione storica di età faraonica e realtà archeologica di età romana e bizantina. Studi preliminari e risultati della I missione archeologica dell'Università degli Studi della Tuscia, *Scienze dell'antichità* 17: 61–91.

BUONGARZONE, R., S. DE ANGELI, S. FINOCCHI and S. MEDAGLIA, 2010, L'Oasi di Farafra. Sistemi idrici a qanat e insediamenti di età romana e bizantina. Risultati preliminari della prima missione dell'Università degli Studi della Tuscia, *Ricerche italiane e scavi in Egitto* (RISE) IV: 63–83.

BUONGARZONE, R., S. DE ANGELI, S. FINOCCHI and S. MEDAGLIA, 2013, L'Oasi di Farafra. Risultati preliminari della terza missione (2011) dell'Università degli Studi della Tuscia, *Ricerche italiane e scavi in Egitto* (RISE) VI: 33–40.

BURASELIS, K., 2013, Ptolemaic grain, seaways and power, in K. Buraselis, M. Stefanou and D. J. Thompson (eds), *The Ptolemies, the Sea and the Nile: Studies in Waterborne Power*, Cambridge University Press, Cambridge, 97–107.

BURSTEIN, S. M., 2008, Elephants for Ptolemy II: Ptolemaic Policy in Nubia in the Third Century BC, in P. McKechnie and P. Guillaume (eds), *Ptolemy II Philadelphus and His World*, Brill, Leiden, 135–147.

BURTON-BROWN, T., 1948, Hellenistic Burials from Cyrenaica, *JHS* 68: 148–152.

CASSON, L., 1993, Ptolemy II and the Hunting of African Elephants, *Transactions of the American Philological Association* 123: 247–260.

CHARLESWORTH, D., 1969, Tell el-Farâ'în: The Industrial Site, 1968, *JEA* 55, 23–30.

CHARLIER, F., F. COLIN, L. DELVAUX, L. HAPIOT, J.-L. HEIM, S. MARCHAND, M. MOSSAKOWSKA-GAUBERT and J. VAN HEESCH, 2012, *Bahariya I: Le fort romain de Qaret el-Toub I*, Institut Français d'Archéologie Orientale, Cairo.

CHASSINAT, É., 1931, *Le Temple d'Edfou* VI, Mémoires publiés par les membres de l'Institut français d'archéologie orientale, Cairo.

CHAUVEAU, M., 2000, *Egypt in the Age of Cleopatra: History and Society under the Ptolemies*, D. Lorton (trans.), Cornell University Press, Ithaca and London.

CHAUVEAU, M., 2008, Les ostraca démotiques, in L. Pantalacci and S. Denoix (eds), Travaux de l'Institut français d'archéologie orientale en 2007–2008, *BIFAO* 108: 434.

CHURCHER, C. S. and A. J. MILLS, 1999, Index List of Archaeological Sites Surveyed by the Dakhleh Oasis Project (Appendix II), in C. S. Churcher and A. J. Mills (eds), *Reports from the Survey of the Dakhleh Oasis 1977–1987*, Oxbow Books, Oxford, 251–265.

CLARYSSE, W. and D. J. THOMPSON, 2006, *Counting the People in Hellenistic Egypt, Volume 2: Historical Studies*, Cambridge University Press, Cambridge.

COLIN, F., 2011, Le 'Domaine d'Amon' à Bahariya de la XVIIIe à la XXVIe dynastie: l'apport des fouilles de Qasr 'Allam, in D. Devauchelle (ed.), *La XXVIe dynastie: continuités et ruptures*, Cybèle, Paris, 47–84.

COLIN, F., 2013, Les gisements archéologiques de Psôbthis au début du XXIe siècle: Diagnostic sur un paysage menacé et nouvelles orientations de recherche, in M. Dospěl and L. Suková (eds), *Bahriya Oasis: Recent Research into the Past of an Egyptian Oasis*, Charles University in Prague, Prague, 152–184.

COLIN, F., D. LAISNEY and S. MARCHAND, 2000, Qaret el-Toub: un fort romain et une nécropole pharaonique, Prospection archéologique dans l'oasis de Bahariya 1999, *BIFAO* 100: 145–192.

COTELLE-MICHEL, L., 2004, *Les sarcophages en terre cuite en Égypte et en Nubie, de l'époque prédynastique à l'époque romaine*, Éditions Faton, Dijon.

COULSON, W. D. E., 1996, *Ancient Naukratis, Volume II, Part I: The Survey at Naukratis*, Oxbow Books, Oxford.

COULSON, W. D. E. and A. LEONARD JR., 1982, Investigations at Naukratis and Environs, 1980 and 1981, *AJA* 86: 361–380.

CRUZ-URIBE, E., 1988, *Hibis Temple Project, Volume 1: Translations, Commentary, Discussions and Sign List*, Van Siclen Books, San Antonio.

CRUZ-URIBE, E., 1995, *Hibis Temple Project, Volume 2: The Demotic Graffiti of Gebel Teir*, Van Siclen Books, San Antonio.

CRUZ-URIBE, E., 1999, Kharga Oasis, Late period and Graeco-Roman Sites, in K. A. Bard (ed.), *Encyclopedia of the Archaeology of Ancient Egypt*, Routledge, London and New York, 487–490.

CRUZ-URIBE, E., 2008, *Hibis Temple Project, Volume 3: The Graffiti from the Temple Precinct*, Van Siclen Books, San Antonio.

CRUZ-URIBE, E., 2010, Social Structure and Daily Life: Graeco-Roman, in A. B. Lloyd (ed.), *A Companion to Ancient Egypt*, Wiley-Blackwell, Chichester and Malden, 491–506.

CRUZ-URIBE, E. AND A. FARID, 2000, A New Look at an Ancient Graffito, *JSSEA* 27: 27–33.

DARNELL, D., 2000, Appendix 4: Oasis Ware Flasks and Kegs from the Theban Desert, in C. A. Hope, Kegs and Flasks from the Dakhleh Oasis, *CCÉ* 6, 227–234.

DARNELL, J. C., 2006, *Architectural Survey of Ghueita Temple*, Yale Egyptological Institute in Egypt, at www.yale.edu/egyptology/ae_gebel_survey.htm, accessed 25 August 2011.

DARNELL, J. C., 2007a, The Deserts, in T. Wilkinson (ed.), *The Egyptian World*, Routledge, London and New York, 29–48.

DARNELL, J. C., 2007b, The Antiquity of the Ghueita Temple, *GM* 212: 29–40.

DARNELL, J. C., 2010, Final Report for the Fifteenth Field Season of the Theban Desert Road Survey, *ASAE* 84: 97–127.

DARNELL, J. C., D. KLOTZ and C. MANASSA, 2013, Gods on the Road: The Pantheon of Thebes at Qasr el-Ghueita, in C. Thiers (ed.), *Documents de Théologies Thébaines Tardives 2,* CENiM 8, Montpellier, 1–31.

DAVIES, N., 1953, *The Temple of Hibis in el Khārgeh Oasis, Part III: The Decoration*, Metropolitan Museum of Art, New York.

DAVOLI, P., 1998, *L'Archeologia urbana nel Fayyum di età ellenistica e romana*, G. Procaccini, Naples.

DAVOLI, P., 2010, Settlements – Distribution, Structure, Architecture: Graeco-Roman, in A. B. Lloyd (ed.), *A Companion to Ancient Egypt*, Wiley-Blackwell, Chichester and Malden, 350–369.

DAVOLI, P., 2012, Amheida 2007–2009: New Results from the Excavations, in R. S. Bagnall, P. Davoli and C. A. Hope (eds), *The Oasis Papers 6: Proceedings of the Sixth International Conference of the Dakhleh Oasis Project*, Oxbow Books, Oxford, 263–278.

DAVOLI, P., 2014, Hellenistic and Roman Egypt, Archaeology of, in C. Smith (ed.), *Encyclopedia of Global Archaeology*, Springer, New York, 3247–3255.

DAVOLI, P. and O. KAPER, 2006, A new temple for Thoth in the Dakhleh Oasis, *EA* 28: 12–14.

DE ANGELI, S., 2013, '*Qanat* Landscapes' in the oases of the Western Desert of Egypt: The cases of the Bahriya and Farafra Oases, in M. Dospěl and L. Suková (eds), *Bahriya Oasis: Recent Research into the Past of an Egyptian Oasis*, Charles University in Prague, Prague, 271–285.

DE ANGELI, S. and S. FINOCCHI, 2010, Origine e diffusione dei canali idrici drenanti (*qanat/foggara*) in Africa settentrionale in età antica, *Bollettino di Archeologia On Line* 1: 39–52.

DE COSSON, A., 1937, Notes on the Baḥrēn, Nuwēmisah, and el-A'reg Oases in the Libyan Desert, *JEA* 23/2: 226–229.

DERCHAIN, P., 1965, *Le Papyrus Salt 825 (BM 10051): Rituel pour la conservation de la vie en Egypte,* Palais des Academies, Brussels.

DE RODRIGO, A. D., 2003, Black Ware in Tell er Rub'a (Mendes), *JSSEA* 30, 103–111.

DEVAUCHELLE, D. and G. WAGNER, 1984, *Les Graffites du Gebel Teir: Textes démotiques et grecs*, Institut Français d'Archéologie Orientale, Cairo.

DIETZE, G., 2000, Temples and Soldiers in Southern Ptolemaic Egypt: Some Epigraphic Evidence, in L. Mooren (ed.), *Politics, Administration and Society in the Hellenistic and Roman World: Proceedings of the International Colloquium, Bertinoro 19–24 July 1997*, Studia Hellenistica 36, Peeters, Leuven, 77–89.

DIODORUS SICULUS, *Volume VIII*, translated by C. B. Welles, Loeb Classical Library, William Heinemann, London, 1963.

DOBROWOLSKI, J., 2002, Remarks on the Construction Stages of the Main Temple and Shrines I–II, in C. A. Hope and G. E. Bowen (eds), *Dakhleh Oasis Project: Preliminary Reports on the 1994–1995 to 1998–1999 Field Seasons*, Oxbow Books, Oxford, 121–128.

DOSPĚL, M. AND L. SUKOVÁ, 2013, Exploration of the El-Hayz Oasis: Issues, approaches, challenges, in M. Dospěl and L. Suková (eds), *Bahriya Oasis: Recent Research into the Past of an Egyptian Oasis*, Charles University in Prague, Prague, 3–18.

DRAKE, N., A. WILSON, R. PELLING, K. WHITE, D. MATTINGLY and S. BLACK, 2004, Water Table Decline, Springline Desiccation and the Early Development of Irrigated Agriculture in the Wādi al-Ajāl, Libyan Fazzān, *Libyan Studies* 35: 95–112.

DÜMICHEN, J., 1877, *Die Oasen der Libyschen Wüste: Ihre alten Namen und ihre Lage, ihre vorzüglichsten Erzeugnisse und die in ihren Tempeln verehrten Gottheiten, nach den Berichten der altägyptischen Denkmäler*, Trübner, Strassburg.

DUNAND, F., 2004, Le mobilier funéraire des tombes d'El-Deir (oasis de Kharga): témoignage d'une diversité culturelle?, in P. C. Bol, G. Kaminski and C. Maderna (eds), *Fremdheit – Eigenheit: Ägypten, Griechenland und Rom, Austausch und Verständnis,* Städel Jahrbuch 19, Städelschen Museums-Verein, Stuttgart: 565–579.

DUNAND, F., J.-L. HEIM, N. HENEIN AND R. LICHTENBERG, 1992, *La nécropole de Douch: T 1 à 72*, Institut français d'archéologie orientale, Cairo.

DUNAND, F., J.-L. HEIM, N. HENEIN AND R. LICHTENBERG, 2005, *La nécropole de Douch, Oasis de Kharga, II: T 73 à 92*, Institut français d'archéologie orientale, Cairo.

DUNAND, F., J.-L. HEIM, and R. LICHTENBERG, 2012, Les Nécropoles d'el-Deir (Oasis de Kharga), in R. S. Bagnall, P. Davoli and C. A. Hope (eds), *The Oasis Papers 6: Proceedings of the Sixth International Conference of the Dakhleh Oasis Project*, Oxbow Books, Oxford, 279–295.

DUNAND, F., J.-L. HEIM, R. LICHTENBERG, S. BRONES and F. LETELLIER-WILLEMIN, 2010, *El-Deir Nécropoles I, La nécropole Sud*, Cybèle, Paris.

DUNAND, F., J.-L. HEIM, R. LICHTENBERG, S. BRONES, F. LETELLIER-WILLEMIN AND G. TALLET, 2013, *El-Deir Nécropoles II, Les nécropoles Nord et Nord-Est*, Cybèle, Paris.

DUNAND, F., B. A. IBRAHIM, and R. LICHTENBERG, 2013, *Le matériel archéologique et les restes humains de la nécropole de Dabashiya*, *CENIM* 7, Montpellier.

DUNAND, F. and R. LICHTENBERG, 2003, *Vue générale d'El Deir*, at www.alpha-necropolis.com/articles.php?zone=deir &cmd =lire&id=1, accessed 29 October 2009.

DUNAND, F. and R. LICHTENBERG, 2005a, Des chiens momifiés à El-Deir, Oasis de Kharga, *BIFAO* 105: 7–87.

DUNAND, F. and R. LICHTENBERG, 2005b, *Vue générale d'Ain El-Labakha*, at www.alpha-necropolis.com/articles.php?zone=labakha&cmd=lire&id=1, accessed 29 October 2009.

DUNAND, F. and R. LICHTENBERG, 2007, *Campagne de fouilles 2006*, at www.alpha-necropolis.com/articles.php?zone=deir & cmd=lire&id=32, accessed 29 October 2009.

DUNAND, F. and R. LICHTENBERG, 2008, *Oasis égyptiennes: Les îles des Bienheureux*, Actes Sud.

DUNHAM, D., 1957, *The Royal Cemeteries of Kush, Volume IV: Royal Tombs at Meroë and Barkal*, Museum of Fine Arts, Boston.

DUNSMORE, A., 2002, Ceramics from Ismant el-Kharab, in C. A. Hope and G. E. Bowen (eds), *Dakhleh Oasis Project: Preliminary Reports on the 1994–1995 to 1998–1999 Field Seasons*, Oxbow Books, Oxford, 129–142.

DZIERZYKRAY-ROGALSKI, T., 1978, Rapport sur les recherches anthropologiques menées dans l'oasis de Dakhleh en 1977 (Ifao-Balat), *BIFAO* 78: 141–145.

DZIERZYKRAY-ROGALSKI, T., 1980, Paleopathology of the Ptolemaic Inhabitants of Dakhleh Oasis (Egypt), *Journal of Human Evolution* 9: 71–74.

ECCLESTON, M. A. J., 2000, Appendix 1: Macroscopic and Petrographic Descriptions of Late Period Keg and Flask Fabrics, in C. A. Hope, Kegs and Flasks from the Dakhleh Oasis, *CCÉ* 6, 211–218.

ECCLESTON, M. A. J., 2006, *Technological and Social Aspects of High-Temperature Industries in the Dakhleh Oasis, Egypt, during the Ptolemaic and Roman Periods*, unpublished PhD dissertation, Monash University.

EDWARDS. W. I., C. A. HOPE and E. R. SEGNIT, 1987, *Ceramics from the Dakhleh Oasis: Preliminary Studies*, Victoria College Press, Burwood.

ÉLAIGNE, S., 2000, Imitations locales de céramiques fines importées: Le cas des 'colour-coated ware' dans les contexts hellénistiques d'Alexandrie, *CCÉ* 6: 99–103.

ÉLAIGNE, S., 2002, L'introduction des céramiques fines hellénistiques du bassin oriental de la Méditerranée à Alexandrie: Importations et imitation locales, in F. Blonde, P. Ballet and J.-F. Salles (eds), *Céramiques hellénistiques et romaines*, Maison de l'Orient Méditerranéen, Lyon, 159–173.

EL-RASHDY, F., 1986, Garamantian Burial Customs: Their Relation to those of other Peoples of North Africa, in *Libya Antiqua: Report and Papers of the Symposium organized by Unesco in Paris, 16 to 18 January 1984*, Unesco – United Nations Educational, Scientific and Cultural Organisation, Paris, 77–105.

ENKLAAR, A., 1998a, Preliminary Report on the Pottery found at Hadra Station in 1987, in J.-Y. Empereur (ed.), *Commerce et Artisanat dans l'Alexandrie Hellénistique et Romaine*, École Française d'Athènes, Athens, 15–24.

ENKLAAR, A., 1998b, La céramique fine hellénistique d'Alexandrie, in J.-Y. Empereur (ed.), *Commerce et Artisanat dans l'Alexandrie Hellénistique et Romaine*, École Française d'Athènes, Athens, 261–274.

ERICHSEN, W. 1933, *Papyrus Harris I*, Bibliotheca Aegyptiaca V, Brussels.

EVELYN-WHITE, H.G. and J.H. OLIVER, 1938, *The Temple of Hibis in el Khārgeh Oasis, Part II: The Greek Inscriptions*, Metropolitan Museum of Art, New York.

FADEL ALI, M., 1995, Archaeological News 1993–1994, *Libya Antica* n.s. 1: 151–152.

FADEL ALI, M., 2007, Trial Excavations at El-Jaghbub, in L. Gasperini and S. M. Marengo (eds), *Cirene e la Cirenaica nell'antichità: atti del convegno internazionale di studi: Roma-Frascati, 18–21 dicembre 1996*, Tored, Tivoli, 1–16.

FAKHRY, A., 1938, Bahria and Farafra Oases: A Preliminary Note on the New Discoveries, *ASAE* 38: 397–434.

FAKHRY, A., 1939a, The Tombs of El-A'reg Oasis in the Libyan Desert, *ASAE* 39: 609–619.

FAKHRY, A., 1939b, Bahria and Farafra Oases: Second Preliminary Report on the New Discoveries, *ASAE* 39: 627–642.

FAKHRY, A., 1940, Bahria and Farafra Oases: Third Preliminary Report on the New Discoveries, *ASAE* 40: 855–871.

FAKHRY, A., 1941a, A Roman Temple Between Kharga and Dakhla, *ASAE* 41: 761–768.

FAKHRY, A., 1941b, A Temple of Alexander the Great at Bahria Oasis, *ASAE* 41: 823–828.

FAKHRY, A., 1942, *Bahria Oasis: Volume I*, Government Press, Cairo.

FAKHRY, A., 1944, *Siwa Oasis: Its History and Antiquities*, Government Press, Cairo.

FAKHRY, A., 1950, *Bahria Oasis: Volume II*, Government Press, Cairo.

FAKHRY, A., 1951, The Rock Inscriptions of Gabal el-Teir at Kharga Oasis, *ASAE* 51: 401–434.

FAKHRY, A., 1973, *Siwa Oasis* (Reprinted 1990), American University in Cairo Press, Cairo.

FAKHRY, A., 1974, *Bahriyah and Farafra* (Reprinted 2003 with a new introduction by A. J. Mills), American University in Cairo Press, Cairo and New York.

FENN, N. and C. RÖMER-STREHL (eds), 2013, *Networks in the Hellenistic World: According to the pottery in the Eastern Mediterranean and beyond*, Archaeopress, Oxford.

FEUCHT, E., 1985, *Das Grab des Nefersecheru (TT 296)*, Philipp von Zabern, Mainz.

FINOCCHI, S. and S. MEDAGLIA, 2011, Primi dati sulla cultura materiale dell'Oasi di Farafra in età romana e bizantina: le ceramiche e le anfore, *Scienze dell'Antichità* 17: 93–105.

FISCHER-BOVET, C., 2013, Egyptian Warriors: The *Machimoi* of Herodotus and the Ptolemaic Army, *The Classical Quarterly* 63(1): 209–236.

FISCHER-BOVET, C., 2014, *Army and Society in Ptolemaic Egypt*, Cambridge University Press, Cambridge.

FRENCH, P., 1992, A Preliminary Study of Pottery in Lower Egypt in the Late Dynastic and Ptolemaic Periods, *CCÉ* 3: 83–93.

FREY, R. A., 1986, Dakhleh Oasis Project: Interim Report on Excavation at the 'Ein Tirghi Cemetery, *JSSEA* 16/3&4: 92–102.

GABER, A., 2009, *The Central Hall in the Egyptian Temples of the Ptolemaic Period*, unpublished PhD dissertation, Durham University.

GALLO, P., 2003, *CMAIA: Relazione della campagna archeologica 2003 dell'Università degli Studi di Torino (BAHREIN)*, at http://www.archaeogate.org/egittologia/article.php?id=55 accessed 15 August 2011.

GALLO, P., 2006, Ounamon, roi de l'oasis libyenne d'El-Bahreïn, *Bulletin de la Société Française d'Égyptologie* 166: 11–30.

GALLORINI, C., 2007, Late Period and Ptolemaic Pottery from the work of the Saqqara Geophysical Survey Project, in J.-C. Goyon and C. Cardin (eds), *Proceedings of the Ninth International Congress of Egyptologists – Actes du neuvième Congrès international des égyptologues, Grenoble, 6–12 Septembre 2004*, Orientalia Lovaniensia Analecta, Leuven, 789–798.

GARDINER, A. H., 1933, The Dakhleh Stela, *JEA* 19: 20–30.

GASCOU, J., G. WAGNER and P. J. GROSSMANN, 1979, Deux voyages archéologiques dans l'oasis de Khargeh, *BIFAO* 79: 1–20.

GASCOU, J. and collaborators, 1980, Douch: rapport préliminaire des campagnes de fouilles de l'hiver 1978/1979 et de l'automne 1979, *BIFAO* 80: 287–345.

GATES-FOSTER, J., 2006, Hidden Passage: Graeco-Roman Roads in Egypt's Eastern Desert, in E.C. Robertson, J.D. Seibert, D.C. Fernandez and M.U. Zender (eds), *Space and Spatial Analysis in Archaeology*, University of Calgary Press, Calgary, 315–322.

GATES-FOSTER, J., 2012a, The Eastern Desert during the Ptolemaic Period: An Emerging Picture, in H. Barnard and K. Duistermaat (eds), *The History of the Peoples of the Eastern Desert*, University of California Press, Los Angeles, 190–203.

GATES-FOSTER, J., 2012b, The Well-Remembered Path: Roadways and Cultural Memory in Ptolemaic and Roman Egypt, in S. E. Alcock, J. Bodel and R. J. A. Talbert (eds), *Highways, Byways, and Road-Systems in the Pre-Modern World*, Wiley-Blackwell, New York, 202–221.

GATES-FOSTER, J., 2012c, The Eastern Desert and the Red Sea Ports, in C. Riggs (ed.), *The Oxford Handbook of Roman Egypt*, Oxford University Press, Oxford, 736–748.

GIDDY, L. L., 1987, *Egyptian Oases: Bahariya, Dakhla, Farafra and Kharga during Pharaonic Times*, Aris and Phillips, Warminster.

GIGANTE, A., 2009, L'Habitat MMA ('Ayn-Manâwir et prospection de l'oasis de Kharga), in L. Pantalacci and S. Denoix (eds), Travaux de l'Institut français d'archéologie orientale en 2008–2009, *BIFAO* 109: 588.

GILL, J. C. R., 2012a, Ptolemaic 'Black Ware' from Mut el-Kharab, in C. M. Knoblauch and J. C. Gill (eds), *Egyptology in Australia and New Zealand 2009: Proceedings of the Conference held in Melbourne, September 4th–6th*, BAR International Series 2355, Archaeopress, Oxford, 15–25.

GILL, J. C. R., 2012b, Ptolemaic Period Pottery from Mut al-Kharab, Dakhleh Oasis, in R. S. Bagnall, P. Davoli and C. A. Hope (eds), *The Oasis Papers 6: Proceedings of the Sixth International Conference of the Dakhleh Oasis Project*, Oxbow Books, Oxford, 231–241.

GILL, J. C. R., *Forthcoming a*, A Corpus of Late Period and Ptolemaic Bes-Vessels from Mut el-Kharab, Western Desert of Egypt, in B. Bader, C. M. Knoblauch and E. C. Köhler (eds), *Vienna 2 – Ancient Egyptian Ceramics in the 21st Century: Proceedings of the International Conference held at the University of Vienna 14th–18th of May, 2012*, Orientalia Lovaniensia Analecta, Peeters, Leuven.

GILL, J. C. R., *Forthcoming b*, Evidence for Ptolemaic Period Activity in Dakhleh Oasis, in O. E. Kaper, A. J. Mills and C. van den Hoven (eds), *The Oasis Papers 7: Proceedings of the Seventh International Conference of the Dakhleh Oasis Project*, Oxbow Books, Oxford.

GILL, J. C. R., *Forthcoming c*, Pottery Decoration in Dakhleh Oasis during the Ptolemaic Period: Evidence for a 'Dakhleh Style', *CCÉ* 10.

GILL, J. C. R., *Forthcoming d*, Kegs and Flasks from Dakhleh Oasis: An Updated Typology for the Late, Ptolemaic and Roman Periods (7th century BCE – 5th century CE), *CCÉ* 10.

GILL, J. C. R., *Forthcoming e*, Beyond the Fayum: The Development of Egypt's Western Oases during the Ptolemaic Period, in J. L. Cox, C. R. Hamilton, K. McLardy, A. J. Pettman and D. A. Stewart (eds), *Ancient Cultures at Monash University: Proceedings of a Conference held between 18–20 October 2013 on Approaches to Studying the Ancient Past*, BAR International Series 2764, Oxford.

GINSBURG, L., 1995, Felis libyca balatensis: Les chats du mastaba II de Balat, *BIFAO* 95: 259–271.

HAIRY, I., 2009, Les machines de l'eau en Égypte et à Alexandrie, in I. Hairy (ed.), *Du Nil à Alexandrie: Histoires d'eaux*, Harpocrates, Alexandria, 550–571.

HARDING-KING, W. J., 1913, The Farafra Depression and Bu Mungar Hattia, *GJ* 42/5: 455–461.

HARDING-KING, W. J., 1925, *Mysteries of the Libyan Desert: A Record of Three Years of Exploration in the Heart of that Vast and Waterless Region*, Seeley, London.

HARLAUT, C., 2002, Productions céramiques Égyptiennes d'Alexandrie à l'époque ptolémaïque, évolution des formes et des fabriques: Traditions locales et innovations, in F. Blonde, P. Ballet and J.-F. Salles (eds), *Céramiques hellénistiques et romaines*, Maison de l'Orient Méditerranéen, Lyon, 263–287.

HAWASS, Z., 2000, *Valley of the Golden Mummies*, Virgin Publishing, London.

HAYES, J. W. and C. HARLAUT, 2002, Ptolemaic and Roman Pottery Deposits from Alexandria, in J.-Y. Empereur (ed.), *Alexandrina 2*, Cairo, 99–138.

HEINZELMANN, M., 2009, *Geophysical Surveys at Al-Zeytun and Abu Shuruf (Siwa Oasis): Report on the Season 2009*, at http://archaeologie.uni-koeln.de/files/siwa_report_2009.pdf, accessed 15 August 2011.

HEINZELMANN, M. and M. BUESS, 2011, Untersuchungen zur Siedlungsstruktur der Oase Siwa in hellenistisch-römischer Zeit: Vorbericht zu einer ersten Forschungskampagne am Birket Zaytun 2009, *Kölner und Bonner Archaeologica* 1: 65–76.

HENNIG, D., 2003, Sicherheitskräfte zur Überwachung der Wüstengrenzen und Karawanenwege im ptolemäischen Ägypten, *Chiron* 33: 145–174.

HERODOTUS, *The Histories*, translated by A. L. Purvis, in R. B. Strassler (ed.), *The Landmark Herodotus*, Pantheon Books, New York, 2007.

HÖLBL, G., 2001, *A History of the Ptolemaic Empire* (trans. T. Saavedra), Routledge, London and New York.

HOPE, C. A., 1979, Dakhleh Oasis Project, Report on the Study of the Pottery and Kilns (First Season – 1978), *JSSEA* 9: 187–201.

HOPE, C. A., 1980, Dakhleh Oasis Project: Report on the Study of the Pottery and Kilns, *JSSEA* 10: 283–313.

HOPE, C. A., 1981, Dakhleh Oasis Project: Report on the Study of the Pottery and Kilns, Third Season – 1980, *JSSEA* 11/4: 233–241.

HOPE, C. A., 1983, Dakhleh Oasis Project: Preliminary Report on the Study of the Pottery, Fifth Season 1982, *JSSEA* 13/3: 142–157.

HOPE, C. A., 1999, Pottery Manufacture in the Dakhleh Oasis, in C. S. Churcher and A. J. Mills (eds), *Reports from the Survey of the Dakhleh Oasis, Western Desert of Egypt, 1977–87*, Oxbow Books, Oxford, 215–243.

HOPE, C. A., 2000, Kegs and Flasks from the Dakhleh Oasis (with appendices by M. A. J. Eccleston, O. E. Kaper, S. Marchand and D. Darnell), *CCÉ* 6, 189–234.

HOPE, C. A., 2001a, Egypt and Libya: The Excavations at Mut el-Kharab in Egypt's Dakhleh Oasis, *The Artefact* 24: 29–46.

HOPE, C. A., 2001b, The Excavations at Ismant el-Kharab and Mut el-Kharab in 2001, *BACE* 12: 35–63.

HOPE, C. A., 2002a, Excavations at Mut el-Kharab and Ismant el-Kharab in 2001–2, *BACE* 13: 85–101.

HOPE, C. A., 2002b, Excavations in the Settlement of Ismant el-Kharab in 1995–1999, in C. A. Hope and G. E. Bowen (eds), *Dakhleh Oasis Project: Preliminary Reports on the 1994–1995 to 1998–1999 Field Seasons*, Oxbow Books, Oxford, 167–208.

HOPE, C. A., 2002c, Oases Amphorae of the New Kingdom (with contributions by M. Eccleston, P. Rose and J. Bourriau), in R. Friedman (ed.), *Egypt and Nubia: Gifts of the Desert*, British Museum Press, London, 95–131.

HOPE, C. A., 2003a, The 2001–2 Excavations at Mut el-Kharab in the Dakhleh Oasis, Egypt, *The Artefact* 26/1: 51–76.

HOPE, C. A., 2003b, The Excavations at Ismant el-Kharab from 2000 to 2002, in G. E. Bowen and C. A. Hope (eds), *The Oasis Papers 3: Proceedings of the Third International Conference of the Dakhleh Oasis Project*, Oxbow Books, Oxford, 207–289.

HOPE, C. A., 2004a, The Excavations at Ismant el-Kharab and Mut el-Kharab in 2004, *BACE* 15: 19–49.

HOPE, C. A., 2004b, A Note on Some Ceramics from Mut, Dakhleh Oasis, *CCÉ* 7: 99–122.

HOPE, C. A., 2005a, Report on the Excavations at Ismant el-Kharab and Mut el-Kharab in 2005 (with Appendices by H. Whitehouse and A. Warfe), *BACE* 16: 35–83.

HOPE, C. A., 2005b, Mut el-Kharab: Seth's city in Dakhleh Oasis, *EA* 27: 3–6.

HOPE, C. A., 2007, Egypt and 'Libya' to the End of the Old Kingdom: A View from Dakhleh Oasis, in Z. A. Hawass and J. Richards (eds), *The Archaeology and Art of Ancient Egypt: Essays in*

Honor of David B. O'Connor, Volume 1, Conseil Suprême des Antiquités de l'Égypte, Cairo, 399–415.

HOPE, C. A., G. E. BOWEN, J. COX, W. DOLLING, J. MILNER and A. PETTMAN, 2009, Report on the 2009 Season of Excavations at Mut el-Kharab, Dakhleh Oasis, *BACE* 20: 47–86.

HOPE, C. A., G. E. BOWEN, W. DOLLING, E. HEALEY, J. MILNER and O. E. KAPER, 2008, The Excavations at Mut el-Kharab, Dakhleh Oasis in 2008, *BACE* 19: 49–71.

HOPE, C. A., G. E. BOWEN, W. DOLLING, C. HUBSCHMANN, P. KUCERA, R. LONG and A. STEVENS, 2006, Report on the Excavations at Ismant el-Kharab and Mut el-Kharab in 2006, *BACE* 17: 23–67.

HOPE, C. A., D. JONES, L. FALVEY, J. PETKOV, H. WHITEHOUSE and K. WORP, 2010, Report on the 2010 Season of Excavations at Ismant el-Kharab, Dakhleh Oasis, *BACE* 21: 21–54.

HOPE, C. A. and A. J. PETTMAN, 2012, Egyptian Connections with Dakhleh Oasis in the Early Dynastic Period to Dynasty IV: New Data from Mut al-Kharab, in R. S. Bagnall, P. Davoli and C. A. Hope (eds), *The Oasis Papers 6: Proceedings of the Sixth International Conference of the Dakhleh Oasis Project*, Oxbow Books, Oxford, 147–166.

HOPE, C. A., *Forthcoming*, Reconstructing the Image of Seth, Lord of the Oasis, in his Temple at Mut al-Kharab in Dakhleh Oasis, in R. Landgráfová and J. Mynářová (eds), *Rich in Years, Great in Victories: Studies in Honour of Tony Spalinger*, Czech Institute of Egyptology, Prague.

HUBBELL, H. M., 1935, Ptolemy's Zoo, *The Classical Journal* 31(2): 68–76.

HUBSCHMANN, C., 2009, *The Oases of the Western Desert of Egypt during the Third Intermediate and Late Periods: The Study of a Regional Identity*, unpublished PhD dissertation, Monash University.

HUBSCHMANN, C., 2010, Beer Jars of Mut el-Kharab, Dakhleh Oasis: Evidence of Votive Activity in the Third Intermediate Period, *BACE* 21: 55–70.

HUBSCHMANN, C., 2012, Searching for an Oasis Identity: Dakhleh Oasis in the Third Intermediate Period, in C. M. Knoblauch and J. C. Gill (eds), *Egyptology in Australia and New Zealand 2009: Proceedings of the Conference held in Melbourne, September 4th–6th*, BAR International Series 2355, Archaeopress, Oxford, 61–70.

HUß, W., 2001, *Ägypten in hellenistischer Zeit: 332–30 v.Chr*, Beck, München.

IBRAHIM, B. A., 2012, Major Archaeological Sites in Kharga Oasis and Some Recent Discoveries, in R. S. Bagnall, P. Davoli and C. A. Hope (eds), *The Oasis Papers 6: Proceedings of the Sixth International Conference of the Dakhleh Oasis Project*, Oxbow Books, Oxford, 1–7.

IBRAHIM, B. A., F. DUNAND, J.-L. HEIM, R. LICHTENBERG, M. HUSSEIN, 2008, *Le matériel archéologique et les restes humains de la nécropole d'Aïn el-Labakha (oasis de Kharga)*, Cybèle, Paris.

IKRAM, S. and C. ROSSI, 2004, North Kharga Oasis Survey 2001–2002 Preliminary Report: Ain Gib and Qasr el-Sumayra, *MDAIK* 60: 69–92.

IKRAM, S. and C. ROSSI, 2006, *North Kharga Oasis Survey, 2006 Season: Exploration of the Darb Ain Amur*, at www1.aucegypt.edu/academic/northkhargaoasissurvey/season_2006.htm, accessed 29 October 2009.

IKRAM, S. and C. ROSSI, 2007, North Kharga Oasis Survey 2004 Preliminary Report: Ain el-Tarakwa, Ain el-Dabashiya and Darb Ain Amur, *MDAIK* 63: 167–184.

JACQUET-GORDON, H., 1997, An Indigenous Egyptian Black Ware of the Ptolemaic Period, in J. Phillips (ed.), *Ancient Egypt, the Aegean and the Near East: Studies in Honour of Martha Rhoads Bell*, Vol. II, 287–295.

JACQUET-GORDON, H., 2012, *Karnak-Nord X, Le Trésor de Thoutmosis Ier: La céramique*, IFAO, Cairo.

JACQUET-GORDON, H., *n.d.*, *From the Twenty-First Dynasty to the Ptolemaic Period*, unpublished manuscript.

JANSSEN, J. J., 1968, The Smaller Dakhla Stela, *JEA* 54: 165–172.

JARITZ, H., and M. RODZIEWICZ, 1994, Syene – Review of the Urban Remains and its Pottery, *MDAIK* 50: 115–141.

KAISER, K. R., 2003, *Water, Milk, Beer and Wine for the Living and the Dead: Egyptian and Syro-Palestinian Bes-Vessels from the New Kingdom through the Graeco-Roman Period*, unpublished PhD dissertation, University of California.

KALLINI, C., 2013, Hellenistic Kantharoi: Their production centers and their distribution in the Eastern Mediterranean, in N. Fenn and C. Römer-Strehl (eds), *Networks in the Hellenistic World: According to the Pottery in the Eastern Mediterranean and Beyond*, Archaeopress, Oxford, 59–66.

KAMEI, H., M. A. ATYA, T. F. ABDALLATIF, M. MORI and P. HEMTHAVY, 2002, Ground-Penetrating Radar and Magnetic Survey to the West of Al-Zayyan Temple, Kharga Oasis, Al-Wadi Al-Jadeed (New Valley), Egypt, *Archaeological Prospection* 9: 93–104.

KAPER, O. E., 1992, Egyptian Toponyms of Dakhla Oasis, *BIFAO* 92: 117–132.

KAPER, O. E., 1997, *Temples and Gods in Roman Dakhleh: Studies in the indigenous cults of an Egyptian oasis*, privately-published PhD dissertation, Rijksuniversiteit Groningen.

KAPER, O. E., 1998, Temple Building in the Egyptian Deserts during the Roman Period, in O. E. Kaper (ed.), *Life on the Fringe: Living in the Southern Egyptian Deserts during the Roman and Early-Byzantine Periods*, CNWS Publications 71, Leiden, 139–158.

KAPER, O. E., 2000, Appendix 2: A Stamp in a Keg from ‘Ein el-Azizi, in C. A. Hope, Kegs and Flasks from the Dakhleh Oasis, *CCÉ* 6: 219–220.

KAPER, O. E., 2001, Two Decorated Blocks from the Temple of Seth in Mut el-Kharab, *BACE* 12: 71–78.

KAPER, O. E., 2008, Epigraphic Work, in *Dakhleh Oasis Project, Columbia University Excavations at Amheida 2008: Preliminary Report*, at www.amheida.org/inc/pdf/Report2008.pdf, accessed 27 August 2008.

KAPER, O. E., 2010, Galba’s Cartouches at Ain Birbiyeh, in K. Lembke, M. Minas-Nerpel and S. Pfeiffer (eds), *Tradition and Transformation: Egypt under Roman Rule, Proceedings of the International Conference, Hildesheim, Roemer- and Pelizaeus-Museum, 3–6 July 2008*, Brill, Leiden, 181–201.

KAPER, O. E., 2012a, The Western Oases, in C. Riggs (ed.), *The Oxford Handbook of Roman Egypt*, Oxford University Press, Oxford, 717–735.

KAPER, O. E., 2012b, Epigraphic Evidence from the Dakhleh Oasis in the Late Period, in R. S. Bagnall, P. Davoli and C. A. Hope (eds), *The Oasis Papers 6: Proceedings of the Sixth International Conference of the Dakhleh Oasis Project*, Oxbow Books, Oxford, 167–176.

KAPER, O. E. and P. DAVOLI, 2006, A new temple for Thoth in the Dakhleh Oasis, *EA* 28: 12–14.

KAPER, O. E. and H. WILLEMS, 2002, Policing the Desert: Old Kingdom Activity around the Dakhleh Oasis (with an appendix by M. M. A. McDonald), in R. Friedman (ed.), *Egypt and Nubia: Gifts of the Desert*, British Museum Press, London, 79–94.

KAPLONY-HECKEL, U., 1997, Die Oasen von Kharge und Dakhle im Spiegel der demotischen Ostraka, in *Akten des 21. Internationalen Papyrologenkongresses, Berlin 1995*, Archiv fur Papyrusforschung, Beiheft 3, Berlin, 525–31.

KAPLONY-HECKEL, U., 2000, Die 28 demotischen Hibis-Ostraka in New York, *Enchoria* 26: 59–83.

KEMP, B. J., 2006, *Ancient Egypt: Anatomy of a Civilization*, 2nd Edition, Routledge, London and New York.

KLEINDIENST, M. R., C. S. CHURCHER, M. M. A. MCDONALD and H. P. SCHWARZ, 1999, Geography, Geology, Geochronology and Geoarchaeology of the Dakhleh Oasis Region: An Interim Report, in C. S. Churcher and A. J. Mills (eds), *Reports from the Survey of the Dakhleh Oasis, Western Desert of Egypt, 1977–87*, Oxbow Books, Oxford, 1–54.

KLEMM, D. D., R. KLEMM and A. MURR, 2002, Ancient Gold Mining in the Eastern Desert of Egypt and the Nubian Desert of Sudan, in R. Friedman (ed.), *Egypt and Nubia: Gifts of the Desert*, British Museum Press, London, 215–231.

KLOTZ, D., 2006, *Adoration of the Ram: Five Hymns to Amun-Re from Hibis Temple*, Yale Egyptological Seminar, New Haven.

KLOTZ, D., 2009, The Cult-Topographical Text of Qasr el-Zayyan, *Revue d'Égyptologie* 60: 17–39.

KLOTZ, D., 2012, Yale University Nadura Temple Project: 2009 Season, in R. S. Bagnall, P. Davoli and C. A. Hope (eds), *The Oasis Papers 6: Proceedings of the Sixth International Conference of the Dakhleh Oasis Project*, Oxbow Books, Oxford, 297–304.

KLOTZ, D., 2013a, Administration of the Deserts and Oases: First Millennium B.C.E., in J. C. M. Garcia (ed.), *Ancient Egyptian Administration*, Brill, Leiden and Boston, 901–909.

KLOTZ, D., 2013b, 'A Theban Devotee of Seth from the Late Period – Now Missing: Hannover, Ex-Museum August Kestner, Inv. S. 0366', *Studien zur Altägyptischen Kultur* 42: 155–180.

KNOBLAUCH, C. M. and L. D. BESTOCK, 2009, Four Thousand Years in Abydos, *MDAIK* 65: 211–252.

KUCERA, P., 2010, *The Roman Military Presence in the Western Desert of Egypt*, unpublished PhD dissertation, Monash University.

KUCERA, P., 2012, Al-Qasr: the Roman *Castrum* of Dakhleh Oasis, in R. S. Bagnall, P. Davoli and C. A. Hope (eds), *The Oasis Papers 6: Proceedings of the Sixth International Conference of the Dakhleh Oasis Project*, Oxbow Books, Oxford, 305–316.

KUHLMANN, K. P., 1988, *Das Ammoneion: Archäologie, Geschichte und Kultpraxis des Orakels von Siwa*, Philipp von Zabern, Mainz.

KUHLMANN, K. P., 1998, Roman and Byzantine Siwa: Developing a Latent Picture, in O. E. Kaper (ed.), *Life on the Fringe: Living in the Southern Egyptian Deserts during the Roman and early-Byzantine Periods*, CNWS Publications 71, Leiden, 159–180.

KUHLMANN, K. P., 2002, The 'Oasis Bypath' or The Issue of Desert Trade in Pharaonic Times, in Jennerstrasse 8 (eds), *Tides of the Desert: Contributions to the Archaeology and Environmental History of Africa in Honour of Rudolf Kuper*, Heinrich-Barth-Institut, Köln, 125–170.

KUHLMANN, K. P., 2010a, The Ammoneion Project: Preliminary Report by the German Institute's Mission to Siwa Oasis, Season 10th February, 2007–12th April, 2007, *ASAE* 84: 217–229.

KUHLMANN, K. P., 2010b, The Ammoneion Project: Preliminary Report by the German Institute's Mission to Siwa Oasis, Season 3rd February, 2008–26th March, 2008, *ASAE* 84: 231–242.

KUHLMANN, K. P., 2011, *The Ammoneion Project at Siwah Oasis*, published on the Deutsches Archäologisches Institut website, created 07/02/2011, at http://www.dainst.org/en/project/ammoneion%20?ft=all, accessed 01 December 2011.

KUHLMANN, K. P., 2013, The realm of "two deserts": Siwa Oasis between east and west, in F. Förster and H. Riemer (eds), *Desert Road Archaeology in Ancient Egypt and Beyond*, Heinrich-Barth-Institut, Cologne, 133–166.

KUPER, R., 2003, The Abu Ballas Trail: Pharaonic Advances into the Libyan Desert, in Z. Hawass (ed.), *Egyptology at the Dawn of the Twenty-First Century Vol. II*, American University in Cairo Press, Cairo and New York, 372–376.

KURTH, D. in collaboration with A. BEHRMANN, A. BLOCK, R. BRECH, D. BUDDE, A. EFFLAND, M. VON FALCK, H. FELBER, J.-P. GRAEFF, S. KOEPKE, S. MARTINSSEN-VON FALCK, E. PARDEY, ST. RÜTER, W. WAITKUS and S. WOODHOUSE, 2014, *Die Inschriften des Tempels von Edfu Abteilung I Übersetzungen Band 3*, Edfou VI, PeWe-Verlag, Gladbeck.

LABRIQUE, F., 2013, Lieux et épiclèses locales à Bahariya, d'après l'épigraphie monumentale d'époque tardive, in M. Dospěl and L. Suková (eds), *Bahriya Oasis: Recent Research into the Past of an Egyptian Oasis*, Charles University in Prague, Prague, 253–267.

LANDVATTER, T. P., 2013, *Identity, Burial Practice, and Social Change in Ptolemaic Egypt*, unpublished PhD dissertation, University of Michigan.

LAUFFRAY, J., 1995, *La chapelle d'Achôris à Karnak, I. Les fouilles, l'architecture, le mobilier et l'anastylose*, Éditions Recherche sur les Civilisations, Paris.

LAW, R. C. C., 1967, The Garamantes and Trans-Saharan Enterprise in Classical Times, *Journal of African History* 8: 181–200.

LEMBKE, K., 2004, Aus der Oase des Sonnengottes – Das Grab des Siamun in Siwa, in P. C. Bol, G. Kaminski and C. Maderna (eds), *Fremdheit, Eigenheit: Ägypten, Griechenland und Rom, Austausch und Verständnis,* Städel Jahrbuch 19, Städelschen Museums-Verein, Stuttgart: 363–373.

LEMBKE, K. and M. MINAS, 2006, Griechisch-römisch oder ägyptisch? Neue und alte Entdeckungen in der Oase Siwa, *Studien zur Altägyptischen Kultur* 34: 319–331

LEONARD, A. and A. BERLIN, 1997, *Ancient Naukratis: Excavations at a Greek Emporium in Egypt*, Ann Arbor, Michigan.

LIVERANI, M., 2000, The Libyan Caravan Road in Herodotus IV.181–185, *Journal of the Economic and Social History of the Orien*t 43: 497–520.

LLOYD, A. B., 2000, The Ptolemaic Period (332–30 BC), in I. Shaw (ed.), *The Oxford History of Ancient Egypt*, Oxford University Press, Oxford, 395–421.

LONG, R. J., 2008, Ceramics at Mut el-Kharab, Dakhleh Oasis: Evidence of a New Kingdom Temple, *BACE* 19, 95–110.

LONG, R. J., 2012, Administrative Control of Egypt's Western Oases during the New Kingdom: A Tale of Two Cities, in C. M. Knoblauch and J. C. Gill (eds), *Egyptology in Australia and New Zealand 2009: Proceedings of the Conference held in Melbourne, September 4th–6th*, BAR International Series 2355, Archaeopress, Oxford, 105–113.

LYTHGOE, A. M., 1908, The Egyptian Expedition, *The Metropolitan Museum of Art Bulletin* 3/5: 83–86.

MAIRS, R., 2010, Egyptian 'Inscriptions' and Greek 'Graffiti' at El Kanais (Egyptian Eastern Desert), in J. Baird and C. Taylor (eds), *Ancient Graffiti in Context*, Routledge, London, 153–164.

MANNING, J. G., 2003, *Land and Power in Ptolemaic Egypt: The Structure of Land Tenure*, Cambridge University Press, Cambridge.

MANNING, J. G., 2010, *The Last Pharaohs: Egypt Under the Ptolemies, 305–30 BC*, Princeton University Press, Princeton and Oxford.

MANNING, J. G., 2011a, Networks, Hierarchies and Markets in the Ptolemaic Economy, in Z. Archibald, J. K. Davies and V. Gabrielsen (eds), *The Economies of Hellenistic Societies: Third to First Centuries BC*, Oxford University Press, Oxford, 296–323.

MANNING, J. G., 2011b, The Capture of the Thebaid, in P. F. Dorman and B. M. Bryan (eds), *Perspectives on Ptolemaic Thebes: Papers from the Theban Workshop 2006*, The Oriental Institute, Chicago, 1–15.

MARANGOU, A. and S. MARCHAND, 2007, Conteneurs importés et égyptiens de Tebtynis (Fayoum): de la deuxième moitié du IVe siècle av. J.-C. au Xe siècle apr. J.-C. (1994–2002), *CCÉ* 8: 239–275.

MARCHAND, S., 1996, Présentation de la céramique du IVe siècle av. J.-C. découverte à Tebtynis, *CCÉ* 4: 171–188.

MARCHAND, S., 2000a, Le survey de Dendara (1996–1997), *CCÉ* 6: 261–297.

MARCHAND, S., 2000b, Appendix 3: Les *siga* des Oasis datées de la XXVIIe-XXIXe dynastie et de l'époque ptolémaïque ancienne trouvées à 'Ayn Manâwîr (oasis de Kharga) et à Tebtynis (Fayoum), in C. A. Hope, Kegs and Flasks from the Dakhleh Oasis, *CCÉ* 6, 221–225.

MARCHAND, S., 2002, Le maintien de le tradition pharaonique pour les productions des céramiques datées de l'époque ptolémaïque en Égypte, in F. Blondé, P. Ballet and J.-F. Salles (eds), *Céramique hellénistiques et romaines: productions et diffusion en Méditerranée orientale (Chypre, Égypte et côte syro-palestinienne)*, Maison de l'Orient Méditerranéen-Jean Pouilloux, Lyon, 247–261.

MARCHAND, S., 2007, Les conteneurs de transport et de stockage de l'oasis de Kharga: De la Basse Époque (XXVIIe–XXXe dynasties) à l'époque ptolémaïque, *CCÉ* 8: 489–502.

MARCHAND, S., 2011, La derniere occupation d'une maison d'epoque ptolémaïque du village de Tebtynis (Fayoum): Une céramique de transition tardo – hellénistique, *CCÉ* 9: 269–310.

MARCHAND, S., 2012, La céramique d'époques romaine et romaine tardive du fort de Qaret el-Toub, in F. Charlier, F. Colin, L Delvaux, L. Hapiot, J.-L. Heim, S. Marchand, M. Mossakowska-Gaubert and J. Van Heesch, *Bahariya I: Le fort romain de Qaret el-Toub I*, Institut Français d'Archéologie Orientale, Cairo, 139–164.

MARCHAND, S., 2013, Céramiques d'Égypte de la fin IVe siècle av. J.-C. au IIIe siècle av. J.-C.: entre tradition et innovation, in N. Fenn and C. Römer-Strehl (eds), *Networks in the Hellenistic World: According to the Pottery in the Eastern Mediterranean and Beyond*, Archaeopress, Oxford, 239–253.

MARCHAND, S. and P. TALLET, 1999, Ayn Asil et l'oasis de Dakhla au Nouvel Empire, *BIFAO* 99: 307–352.

MARQUAILLE, C., 2008, The Foreign Policy of Ptolemy II, in P. McKechnie and P. Guillaume (eds), *Ptolemy II Philadelphus and His World*, Brill, Leiden, 39–64.

MASSON, A., 2011, Persian and Ptolemaic Ceramics from Karnak: Change and Continuity, *CCÉ* 9: 269–310.

MATHIEU, B. (ed.), 2000, Travaux de l'Institut français d'archéologie orientale en 1999–2000, *BIFAO* 100: 443–575.

MATHIEU, B. (ed.), 2001, Travaux de l'Institut français d'archéologie orientale en 2000–2001, *BIFAO* 101: 449–610.

MATHIEU, B. (ed.), 2002, Travaux de l'Institut français d'archéologie orientale en 2001–2002, *BIFAO* 102: 437–614.

MATHIEU, B. (ed.), 2003, Travaux de l'Institut français d'archéologie orientale en 2002–2003, *BIFAO* 103: 487–664.

MATHIEU, B. (ed.), 2004, Travaux de l'Institut français d'archéologie orientale en 2003–2004, *BIFAO* 104: 585–762.

MATTINGLY, D., 2006, The Garamantes: The First Libyan State, in D. Mattingly, S. McLaren, E. Savage, Y. al-Fasatwi and K. Gadgood (eds), *The Libyan Desert: Natural Resources and Cultural Heritage*, The Society for Libyan Studies, London, 189–204.

MATTINGLY, D. J., C. M. DANIELS, J. N. DORE, D. EDWARDS and J. HAWTHORNE, 2003, *The Archaeology of Fazzān: Volume 1, Synthesis*, edited by D. J. Mattingly, The Society for Libyan Studies, London.

MICHAŁOWSKI, K., C. H. DESROCHES, J. DE LINAGE, J. MANTEUFFEL and M. ZEJMO-ZEJMIS, 1950, *Tell Edfou III, 1939*, Institut Français d'Archéologie Orientale, Cairo.

MIDANT-REYNES, B. and S. DENOIX, 2010, Travaux de l'Institut français d'archéologie orientale en 2009–2010, *BIFAO* 110: 303–477.

MILLER, M. C., 1997, *Athens and Persia in the Fifth Century BC: A Study in Cultural Receptivity*, Cambridge University Press, Cambridge.

MILLS, A. J., 1979, Dakhleh Oasis Project: Report on the First Season of Survey, October – December 1978, *JSSEA* 9: 163–185.

MILLS, A. J., 1980, Dakhleh Oasis Project: Report on the Second Season of Survey, September – December 1979, *JSSEA* 10/4: 251–282.

MILLS, A. J., 1981, The Dakhleh Oasis Project: Report on the Third Season of Survey, September – December 1980, *JSSEA* 11/4: 175–192.

MILLS, A. J., 1982, The Dakhleh Oasis Project: Report on the Fourth Season of Survey, October 1981 – January 1982, *JSSEA* 12/3: 93–101.

MILLS, A. J., 1983, The Dakhleh Oasis Project: Report on the Fifth Season of Survey, October 1982 – January 1983, *JSSEA* 13/3: 121–141.

MILLS, A. J., 1984, Research in the Dakhleh Oasis, in L. Krzyzaniak and M. Kobusiewicz (eds), *Origin and Early Development of Food-Producing cultures in North-Eastern Africa*, Poznan Archaeological Museum, Poznan, 205–210.

MILLS, A. J., 1985, The Dakhleh Oasis Project, in *Mélanges Gamal Eddin Mokhtar, Volume II*, Institut Français d'Archéologie Orientale, Cairo, 125–134.

MILLS, A. J., 1986, The Dakhleh Oasis Project: Report on the 1986/1987 Field Season, *JSSEA* 16/3&4: 65–73.

MILLS, A. J., 1987, The Dakhleh Oasis Project: Report on the 1987/1988 Field Seasons, *JSSEA* 17/4: 142–150.

MILLS, A. J., 1990, The Dakhleh Oasis Project: Report on the 1990–1991 Field Season, *JSSEA* 20: 11–16.

MILLS, A. J., 1997, The Dakhleh Oasis Project, in R.S. Bagnall (ed.), *The Kellis Agricultural Account Book*, Oxbow Books, Oxford, 1–3.

MILLS, A. J., 1999a, Pharaonic Egyptians in the Dakhleh Oasis, in C. S. Churcher and A. J. Mills (eds), *Reports from the Survey of the Dakhleh Oasis, Western Desert of Egypt, 1977–87*, Oxbow Books, Oxford, 171–178.

MILLS, A. J., 1999b, Deir el-Haggar, in C. A. Hope and A. J. Mills (eds), *Dakhleh Oasis Project: Preliminary Reports on the 1992–1993 and 1993–1994 Field Seasons*, Oxbow Books, Oxford, 25–26.

MILLS, A. J., 2002, Deir el-Hagar, 'Ain Birbiyeh, 'Ain el-Gazzareen and El-Muzawwaqa, in C. A. Hope and G. E. Bowen (eds), *Dakhleh Oasis Project: Preliminary Reports on the 1994–1995 to 1998–1999 Field Seasons*, Oxbow Books, Oxford, 26–30.

MILLS, A. J., 2007, The Oases, in T. Wilkinson (ed.), *The Egyptian World*, Routledge, London and New York, 49–56.

MINAS-NERPEL, M., 2007, A Demotic Inscribed Icosahedron from Dakhleh Oasis, *JEA* 93: 137–148.

MINAULT-GOUT, A., 1992, *Balat II: Le Mastaba d'Ima Pepi*, Institut Français d'Archéologie Orientale du Caire, Cairo.

MONSON, A., 2012, *From the Ptolemies to the Romans: Political and Economic Change in Egypt*, Cambridge University Press, Cambridge.

MONTSERRAT, D. and L. MESKELL, 1997, Mortuary Archaeology and Religious Landscape at Graeco-Roman Deir el-Medina, *JEA* 83: 179–197.

MOOREY, P. R. S., 1980, *Cemeteries of the First Millennium B.C. at Deve Hüyük, near Carchemish, salvaged by T. E. Lawrence and C. L. Wooley in 1913*, BAR International Series.

MUELLER, K., 2004, Dating the Ptolemaic city-foundations in Cyrenaica: A brief note, *Libyan Studies* 35: 1–10.

MUELLER, K., 2006, *Settlements of the Ptolemies: City Foundations and New Settlements in the Hellenistic World*, Peeters, Leuven.

MYŚLIWIEC, K., 1995, Tell Atrib 1994, *Polish Archaeology in the Mediterranean* VI: 37–47.

MYŚLIWIEC, K. and A. POLUDNIKIEWICZ, 2003, A Center of Ceramic Production in Ptolemaic Athribis, in C. A. Redmount and C. A. Keller (eds), *Egyptian Pottery: Proceedings of the 1990 Pottery Symposium at the University of California, Berkeley*, University of California, Berkeley, 133–152.

NAUMANN, R. 1939, Bauwerke der Oase Khargeh, *MDAIK* 8: 1–16.

NENNA, M.-D., 2002, Vaisselle en faïence, en métal, en verre et en céramique: filiations et imitations dans l'Égypte ptolémaïque, in F. Blonde, P. Ballet and J.-F. Salles (eds), *Céramiques hellénistiques et romaines*, Maison de l'Orient Méditerranéen, Lyon, 321–329.

NEWELL, E. T., 1941, Appendix 1: The Coins found in the Excavation of the Temple, in H. E. Winlock, *The Temple of Hibis in el Khārgeh Oasis, Part 1: The Excavations*, Metropolitan Museum of Art, New York, 51–55.

NORDSTRÖM, H-Å. AND J. BOURRIAU, 1993, Ceramic Technology: Clays and Fabrics (Fascicle 2), in D. Arnold and J. Bourriau (eds), *An Introduction to Ancient Egyptian Pottery*, Philipp von Zabern, Mainz am Rhein, 143–190.

NUR-EL-DIN, M. A., 1982, The Demotic Ostraca from Qaret el-Muzawwaqa, in J. Osing, M. Moursi, D. Arnold, O. Neugebauer, R. A. Parker, D. Pingree and M. A. Nur-el-Din, *Denkmäler der Oase Dachla aus dem Nachlass von Ahmed Fakhry*, Mainz am Rhein, 103–117.

OCHSENSCHLAGER, E. L., 1967, The Excavations at Tell Timai, *JARCE* 6: 32–51.

OSING, J., 1985, Die ägyptischen Namen für Charga und Dachla, in *Mélanges Gamal Eddin Mokhtar, Volume II*, Institut Français d'Archéologie Orientale, Cairo, 179–193.

OSING, J., M. MOURSI, D. ARNOLD, O. NEUGEBAUER, R. A. PARKER, D. PINGREE AND M. A. NUR-EL-DIN, 1982, *Denkmäler der Oase Dachla aus dem Nachlass von Ahmed Fakhry*, Mainz am Rhein.

PARTHEY, G., 1862, *Das Orakel und die Oase des Ammon*, Royal Academy of Sciences, Berlin.

PATTEN, S. F., 1999, Report on the Study of Ceramics: 1993–1994 Seasons, in C. A. Hope and A. J. Mills (eds), *Dakhleh Oasis Project: Preliminary Reports on the 1992–1993 and 1993–1994 Field Seasons*, Oxbow Books, Oxford, 83–88.

PATTEN, S. F., 2000, *Pottery from the Late Period to the Early Roman Period from Dakhleh Oasis, Egypt*, unpublished PhD dissertation, Macquarie University.

PAUSANIAS, *Guide to Greece, Volume I*, translated and introduced by P. Levi, Penguin Books, Harmondsworth, 1971.

PELLING, R., 2005, Garamantian Agriculture and its Significance in a Wider North African Context: The Evidence of the Plant Remains from the Fazzan Project, *JNAS* 10/3–4: 397–411.

PEMBERTON, E. G., 1989, *Corinth XVIII, Part I: The Sanctuary of Demeter and Kore, The Greek Pottery,* The American School of Classical Studies at Athens, Princeton.

PETRIE, W. M. F., 1909, *Memphis I*, Bernard Quaritch, London.

PETRIE, W. M. F. and E. MACKAY, 1915, *Heliopolis, Kafr Ammar and Sharafa*, British School of Archaeology in Egypt, London.

PFEIFFER, S., 2004, *Das Dekret von Kanopos (238 v. Chr.): Kommentar und historische Auswertung eines dreisprachigen Synodaldekretes der ägyptischen Priester zu Ehren,* KG Saur, Munich.

PFROMMER, M., 1996, Roots and Contacts: Aspects of Alexandrian Craftsmanship, in K. Hamma (ed.), *Alexandria and Alexandrianism*, J. Paul Getty Museum, Malibu, 171–189.

PIERRAT-BONNEFOIS, G., 2002, L'hellénisation des productions céramiques en Haute-Égypte: Le cas de Tôd, in F. Blonde, P. Ballet and J.-F. Salles (eds), *Céramiques hellénistiques et romaines*, Maison de l'Orient Méditerranéen, Lyon, 175–188.

POLUDNIKIEWICZ, A., 1992, Local Imitations of Greek Pottery found in Tell Atrib, *CCÉ* 3: 95–101.

POO, M., 1995, *Wine and Wine Offering in the Religion of Ancient Egypt*, Kegan Paul International, London and New York.

POO, M., 2010, Liquids in Temple Ritual, in W. Wendrich (ed.), *UCLA Encyclopedia of Egyptology*, Los Angeles, at http://www.escholarship.org/uc/item/7gh1n151.

POOLE, R. S., *Catalogue of Greek Coins: The Ptolemies, Kings of Egypt*, London, 1883.

PORTER, B. and R. L. B. MOSS, 1952, *Topographical Bibliography of Ancient Egyptian Hieroglyphic Texts, Reliefs and Paintings: VII. Nubia, the Deserts and Outside Egypt*, Oxford University Press, Oxford (reprinted by Griffith Institute 1995).

PYKE, G., 2006, Excavations at Amheida 2006: Pottery, in A. J. Mills (ed.), *Report to the Supreme Council of Antiquities on the 2005–2006 Season Activities of the Dakhleh Oasis Project*, at www.arts.monash.edu.au/archaeology/excavations/dakhleh/dakhleh-report-2005-2006.pdf, accessed 24 October 2007.

REDDÉ, M., 1990, Quinze années de recherches françaises à Douch: Vers un premier bilan (with appendices by F. Dunand, R. Lichtenberg, J.-L. Heim and P. Ballet), *BIFAO* 90: 281–301.

REDDÉ, M., 1999, Sites militaires romains de l'oasis de Kharga, *BIFAO* 99: 377–396.

REDDÉ, M., P. BALLET, A. BARBET, and C. BONNET, 2004, *Kysis: fouilles de l'Ifao à Douch, Oasis de Kharga, 1985–1990*, Institut français d'archéologie orientale, Cairo.

RICE, E. E., 1983, *The Grand Procession of Ptolemy Philadelphus*, Oxford University Press, Oxford and New York.

RIGGS, C., 2010, Funerary Rituals (Ptolemaic and Roman Periods), in J. Dieleman and W. Wendrich (eds), *UCLA Encyclopedia of Egyptology*, Los Angeles, at http://escholarship.org/uc/item /1n10x347.

ROHLFS, G., 1875, *Drei Monate in der libyschen Wüste*, Theodor Fischer, Cassel.

ROSSI, C., 2000, Umm el-Dabadib, Roman Settlement in the Kharga Oasis: Description of the Visible Remains, With a Note on 'Ayn Amur, *MDAIK* 56: 335–352.

ROSSI, C., 2012, Controlling the Borders of the Empire: The Distribution of Late-Roman 'Forts' in the Kharga Oasis, in R. S. Bagnall, P. Davoli and C. A. Hope (eds), *The Oasis Papers 6: Proceedings of the Sixth International Conference of the Dakhleh Oasis Project*, Oxbow Books, Oxford, 331–336.

ROSSI, C. and S. IKRAM, 2006, North Kharga Oasis Survey, 2003 Preliminary Report: Umm el-Dabadib (with contributions by A. Clapham, A. Dunsmore, A. Gascoigne and N. Warner), *MDAIK* 62: 279–306.

ROSSI, C. and S. IKRAM, 2010, North Kharga Oasis Survey 2007, Preliminary Report: Ain Lebekha and Ain Amur, *MDAIK* 66: 235–242.

ROTROFF, S. I., 1997, *Hellenistic Pottery, Athenian and Imported Wheelmade Tableware and Related Material: The Athenian Agora, Vol. XXIX*, American School of Classical Studies at Athens, Princeton.

ROTROFF, S. I., 2006, *Hellenistic Pottery, The Plain Wares: The Athenian Agora*, American School of Classical Studies at Athens, Princeton.

ROWLANDSON, J., 2003, Town and Country in Ptolemaic Egypt, in A. Erskine (ed.), *A Companion to the Hellenistic World*, Blackwell Publishing, Oxford, 249–263.

SAMUEL, A. E., 1983, *From Athens to Alexandria: Hellenism and Social Goals in Ptolemaic Egypt*, Studia Hellenistica 26, Leuven.

SAMUEL, A. E., 1989, *The Shifting Sands of History: Interpretations of Ptolemaic Egypt*, University Press of America, Lanham, New York, London.

SCHACHT, I., 2003, A Preliminary Survey of the Ancient Qanat Systems of the Northern Kharga Oasis, *MDAIK* 59: 411–423.

SCHREIBER, G., 2003, *Late Dynastic and Ptolemaic Painted Pottery from Thebes: 4th–2nd C. BC*, Eötvös Loránd University, Budapest.

SCHREIBER, G., 2009, Cat. No. 65, Two-handled bag-shaped jar (ballas), in T. A. Bács, Z. I. Fábián, G. Schreiber and L. Török (eds), *Hungarian Excavations in the Theban Necropolis, A Celebration of 102 Years of Fieldwork in Egypt: Catalogue for the Temporary Exhibition in the Egyptian Museum, Cairo, November 6, 2009 – January 15, 2010*, Budapest, 138–139.

SCHREIBER, G., 2011, Early and Middle Ptolemaic Funerary Art at Thebes (ca. 306–88 BC), in Z. Hawass, T. Bács and G. Schreiber (eds), *Proceedings of the Colloquium on Theban Archaeology at the Supreme Council of Antiquities, November 5, 2009*, Supreme Council of Antiquities of Egypt, Cairo, 105–139.

SCHWEITZER, A., 2002, Les parures de cartonnage des mommies d'une nécropole d'Ismant el-Kharab, in C. A. Hope and G. E. Bowen (eds), *Dakhleh Oasis Project: Preliminary Reports on the 1994–1995 to 1998–1999 Field Seasons*, Oxbow Books, Oxford, 269–276.

SETHE, K., 1920, Die ägyptischen Bezeichnungen für die Oasen und ihre Bewohner, *ZÄS* 56: 44–54.

SETON-WILLIAMS, M. V., 1967, The Tell el-Farâ'în Expedition, 1967, *JEA* 53: 146–155.

SIDEBOTHAM, S. E., 2011, *Berenike and the Ancient Maritime Spice Route*, University of California Press, Berkeley, Los Angeles and London.

SIDEBOTHAM, S. E. and W. Z. WENDRICH, 1998, Berenike: Archaeological Fieldwork at a Ptolemaic-Roman Port on the Red Sea Coast of Egypt 1994–1998, *Sahara* 10: 85–97.

SIDEBOTHAM, S. E. and W. Z. WENDRICH, 2001/2, Berenike: Archaeological Fieldwork at a Ptolemaic-Roman Port on the Red Sea Coast of Egypt 1999–2001, *Sahara* 13:23–50.

SIDEBOTHAM, S. E. and R. E. ZITTERKOPF, 1995, Routes through the Eastern Desert of Egypt, *Expedition* 37/2: 39–52.

SMITH, M., 2010, The Reign of Seth: Egyptian Perspectives from the First Millennium BCE, in L. Bareš, F. Coppens and K. Smoláriková (eds), *Egypt in Transition: Social and Religious Development of Egypt in the First Millennium BCE*, Charles University in Prague, Prague, 396–430.

SPARKES, B. and L. TALCOTT, 1970, *Black and Plain Pottery of the 6th, 5th and 4th centuries B.C.: The Athenian Agora, Vol. XII*, American School of Classical Studies at Athens, Princeton.

SPENCER, A. J., 1996, *Excavations at Tell el-Balamun, 1991–1994*, British Museum Press, London.

SPENCER, A. J., 1999, *Excavations at Tell el-Balamun, 1995–1998*, British Museum Press, London.

SPENCER, A. J., 2003, *Excavations at Tell el-Balamun, 1999–2001*, British Museum Press, London.

SPIEGELBERG, W., 1913, Eine Urkunde über die Eröffnung eines Steinbruchs unter Ptolemaios XIII, *ZÄS* 51: 65–75.

STEFANOU, M., 2013, Waterborne recruits: the military settlers of Ptolemaic Egypt, in K. Buraselis, M. Stefanou and D. J. Thompson (eds), *The Ptolemies, the Sea and the Nile: Studies in Waterborne Power*, Cambridge University Press, Cambridge, 108–131.

STEINDORFF, G., 1904, *Durch die Libysche Wüste zur Amonsoase*, Land und Leute XIX, Velhagen and Klasing, Bielefeld and Leipzig.

SULLIVAN, R. D., 1996, Psammetichus I and the Foundation of Naukratis, in W. D. E. Coulson, *Ancient Naukratis, Volume II, Part I: The Survey at Naukratis*, Oxbow Books, Oxford, 177–195.

TAIT, J., 2002, A Note on Demotic Inscriptions from the Temple of Tutu, in C. A. Hope and G. E. Bowen (eds), *Dakhleh Oasis Project: Preliminary Reports on the 1994–1995 and 1998–1999 Field Seasons*, Oxbow Books, Oxford, 297–298.

TALLET, G., 2014, 'Culture matérielle et appartenances ethniques: quelques questions posées par les nécropoles d'El-Deir (oasis de Kharga, Égypte)', *Dialogues d'histoire ancienne* supplément 10: 217–252.

TALLET, G., J.-P. BRAVARD, R. GARCIER, S. GUÉDON and A. MOSTAPHA, 2012, The Survey Project at el-Deir, Kharga Oasis: First Results, New Hypotheses, in R. S. Bagnall, P. Davoli and C. A. Hope (eds), *The Oasis Papers 6: Proceedings of the Sixth International Conference of the Dakhleh Oasis Project*, Oxbow Books, Oxford, 349–361.

TE VELDE, H., 1967, *Seth, God of Confusion*, Brill, Leiden.

THIERS, C., 1995, Civils et militaires dans les temples: Occupation illicite et expulsion, *BIFAO* 95: 493–516.

THISSEN, H.-J., 2013, Donkeys and water: Demotic ostraka in Cologne as evidence for desert travel between Oxyrhynchos and the Bahariya Oasis in the 2nd century BC, in F. Förster and H. Riemer (eds), *Desert Road Archaeology in Ancient Egypt and Beyond*, Heinrich-Barth-Institut, Cologne, 391–397.

THOMPSON, D. J., 2003, The Ptolemies and Egypt, in A. Erskine (ed.), *A Companion to the Hellenistic World*, Blackwell Publishing, Oxford, 105–120.

THOMPSON, D. J., 2008, Economic Reforms in the Mid-Reign of Ptolemy Philadelphus, in P. McKechnie and P. Guillaume (eds), *Ptolemy II Philadelphus and His World*, Brill, Leiden, 27–38.

THOMPSON, H. A. and D. B. THOMPSON, 1987, *Hellenistic Pottery and Terracottas (Reprinted from Hesperia)*, with a preface by S. I. Rotroff, American School of Classical Studies at Athens, Princeton.

TOMOUM, N. S., 2005, *The Sculptors' Models of the Late and Ptolemaic Periods: A Study of the Type and Function of a Group of Ancient Egyptian Artefacts*, B. Siller (trans.), Supreme, Council of Antiquities, Cairo.

TÖRÖK, L., 2011, *Hellenizing Art in Ancient Nubia 300 BC – AD 250 and its Egyptian Models: A Study in "Acculturation"*, Brill, Leiden and Boston.

TURNER, E. G., 1984, Ptolemaic Egypt, in F. W. Walbank, A. E. Astin, M. W. Frederiksen and R. M. Ogilvie (eds), *The Cambridge Ancient History: Volume VII Part I The Hellenistic World*, Cambridge University Press, Cambridge, 118–174.

VANDORPE, K., 2010, The Ptolemaic Period, in A. B. Lloyd (ed.), *A Companion to Ancient Egypt*, Wiley-Blackwell, Chichester and Malden, 159–179.

VAN HEESCH, J., 2003, Les monnaies, in B. Mathieu (ed.), Travaux de l'Institut français d'archéologie orientale en 2002–2003, *BIFAO* 103: 532–533.

VAN HEESCH, J., 2012, Les Monnaies, in F. Charlier, F. Colin, L Delvaux, L. Hapiot, J.-L. Heim, S. Marchand, M. Mossakowska-Gaubert and J. Van Heesch, *Bahariya I: Le fort romain de Qaret el-Toub I*, Institut Français d'Archéologie Orientale, Cairo, 119–130.

VAN 'T DACK, E., 1988, *Ptolemaica Selecta: Études sur l'armée et l'administration lagides*, Studia Hellenistica 29, Peeters, Leuven.

VAN ZOEST, C. and O. E. KAPER, 2006, *Treasures of the Dakhleh Oasis*, Cairo.

VERCOUTTER, J., 1977, Les travaux de l'Institut français d'archéologie orientale en 1976–1977, *BIFAO* 77: 271–286.

VICKERS, M., 1985, Artful Crafts: The Influence of Metal Work on Athenian Painted Pottery, *JHS* 105: 108–128.

VITTMANN, G., 2012, Demotische und kursivhieratische Ostraka aus Mut al-Kharab, in R. S. Bagnall, P. Davoli and C. A. Hope (eds), *The Oasis Papers 6: Proceedings of the Sixth International Conference of the Dakhleh Oasis Project*, Oxbow Books, Oxford, 19–31.

VIVIAN, C., 2008, *The Western Desert of Egypt: An Explorer's Handbook*, The American University in Cairo Press, Cairo and New York.

VOGEIKOFF-BROGAN, N., 2000, Late Hellenistic Pottery in Athens: A New Deposit and Further Thoughts on the Association of Pottery and Societal Change, *Hesperia* 69/3: 293–333.

WAGNER, G., 1987, *Les oases d'Égypt: À l'epoque grecque, romaine et byzantine d'après les documents grecs*, Institut Français d'Archéologie Orientale, Cairo.

WARNER, N., 2012, Amheida: Architectural Conservation and Site Development, 2004–2009, in R. S. Bagnall, P. Davoli and C. A. Hope (eds), *The Oasis Papers 6: Proceedings of the Sixth International Conference of the Dakhleh Oasis Project*, Oxbow Books, Oxford, 363–379.

WHITE, A. S., 1899, *From Sphinx to Oracle: Through the Libyan Desert to the Oasis of Jupiter Ammon*, Hurst and Blackett, London.

WHITEHOUSE, H. 1998, Roman in Life, Egyptian in Death: The Painted Tomb of Petosiris in the Dakhleh Oasis, in O. E. Kaper (ed.), *Life on the Fringe: Living in the Southern Egyptian Deserts during the Roman and Early-Byzantine Periods*, CNWS Publications 71, Leiden, 253–270.

WHITEHOUSE, H. and C. HOPE, 1999, A Painted Panel of Isis, in C. A. Hope and A. J. Mills (eds), *Dakhleh Oasis Project: Preliminary Reports on the 1992–1993 and 1993–1994 Field Seasons*, Oxbow Books, Oxford, 95–100.

WILCKEN, U., 1920, Papyrus-Urkunden, *Archiv für Papyrusforschung und Verwandte Gebeite* 6, 275–278.

WILKINSON, R. H., 2000, *The Complete Temples of Ancient Egypt*, Thames and Hudson, London.

WILLEITNER, J., 2003, *Die ägyptischen Oasen: Städte, Tempel und Gräber in der Libyschen Wüste*, Philipp von Zabern, Mainz.

WILSON, A., 2006, The Spread of Foggara-based Irrigation in the Ancient Sahara, in D. Mattingly, S. McLaren, E. Savage, Y. al-Fasatwi and K. Gadgood (eds), *The Libyan Desert: Natural Resources and Cultural Heritage*, The Society for Libyan Studies, London, 205–216.

WILSON, P., 1997, *A Ptolemaic Lexikon: A Lexicographical Study of the Texts in the Temple of Edfu*, Peeters, Leuven.

WINLOCK, H. E., 1909, The Egyptian Expedition, *The Metropolitan Museum of Art Bulletin* 4/11: 199–203.

WINLOCK, H. E., 1910, The Egyptian Expedition, *The Metropolitan Museum of Art Bulletin* 5/10: 221–228.

WINLOCK, H. E., 1936, *Ed-Dakhleh Oasis: Journal of a Camel Trip made in 1908*, Metropolitan Museum of Art, New York.

WINLOCK, H. E., 1941, *The Temple of Hibis in el Khārgeh Oasis, Part I: The Excavations*, Metropolitan Museum of Art, New York.

WODZIŃSKA, A., 2010, *A Manual of Egyptian Pottery, Volume 4: Ptolemaic Period–Modern Period*, Ancient Egypt Research Associates, Boston.

WRIGHT, G. R. H., 1997, Tombs at the Oasis of Jeghbub: An Exploration in 1955, *Libyan Studies* 28: 29–41.

WUTTMANN M., 2001, Les qanats de ‘Ayn-Manawir (oasis de Kharga, Ègypte), in P. Briant (ed.), *Irrigation et drainage dans l’antiquité: Qanats et canalisations souterraines en Iran, en Egypte et en Grece,* Persika 2, Thotm, Paris, 109–135.

WUTTMANN, M., H. BARAKAT, B. BOUSQUET, M. CHAUVEAU, T. GONON, S. MARCHAND, M. ROBIN and A. SCHWEITZER, 1998, ‘Ayn Manāwīr (oasis de Kharga): Deuxième rapport préliminaire, *BIFAO* 98: 367–462.

WUTTMANN, M., B. BOUSQUET, M. CHAUVEAU, P. DILS, S. MARCHAND, A. SCHWEITZER and L. VOLAY, 1996, Premier rapport préliminaire des travaux sur le site de ‘Ayn Manāwīr (oasis de Kharga), *BIFAO* 96: 385–452.

WUTTMANN, M., L. COULON and F. GOMBERT, 2007, An Assemblage of Bronze Statuettes in a Cult Context: The Temple of ‘Ayn Manâwir, in M. Hill (ed.), *Gifts for the Gods: Images from Egyptian Temples*, Metropolitan Museum of Art, New York, 167–173.

WUTTMANN, M. and S. MARCHAND, 2005, Égypte, in P. Briant and R. Boucharlat (eds), *L’archéologie de l’empire achéménide: nouvelles recherches*, Persika 6, Thotm, Paris, 97–121.

YAMANI, S., 2002, New Year’s Bottles from Tell Marqula (Dakhla Oasis), *BIFAO* 102: 425–436.

ZAGHLOUL, E. A, S. M. HASSAN, A. M. BAHY EL-DEIN, S. F. ELBEIH, 2013, ‘Detection of ancient irrigation canals of Deir El-Hagar playa, Dakhla Oasis, Egypt, using Egyptsat-1 data’, *The Egyptian Journal of Remote Sensing and Space Sciences* 16/2: 153–161.

UNPUBLISHED FIELD NOTES OF THE DAKHLEH OASIS PROJECT

BRIND, S. V., 1980, *Field Notes I.*

FREY, R. A., 1979, *Field Notes I.*

FREY, R. A., 1980, *Field Notes II.*

HAYNES, J., 1979, *Field Notes I.*

HAYNES, J., 1980, *Field Notes II.*

HOLLET, A., 1978, *Field Notes I.*

HOPE, C. A., 1978, *Field Notes I.*

KEALL, E., 1980, *Field Notes I.*

LEAHY, L. M., 1979, *Field Notes I.*

MILLS, A. J., 1978, *Field Notes I.*

MILLS, A. J., 1979, *Field Notes II.*

MILLS, A. J., 1980, *Field Notes III.*

MILLS, A. J., 1981, *Field Notes IV.*

MILLS, L. F., 1980, *Field Notes I.*

SHELDRICK, P., 1979, *Field Notes I.*

SHELDRICK, P., 1980a, *Field Notes III.*

SHELDRICK, P., 1980b, *Field Notes IV.*

PLATES

Section A Mut al-Kharab, Site and Trenches 448
Section B Mut al-Kharab, Pottery 455
Section C Mut al-Kharab, Objects 467
Section D Dakhleh Oasis, Sites 468
Section E Dakhleh Oasis, Pottery 474

PLATE A.1 Mut al-Kharab: General view of temple area looking north-west; © J. Gill.

PLATE A.2 Mut al-Kharab: General view showing modern tracks; © J. Gill.

PLATE A.3 Mut al-Kharab: Southern temenos wall looking north-east; © J. Gill.

PLATE A.4 Mut al-Kharab: Southern temenos wall looking west; © J. Gill.

PLATE A.5 Mut al-Kharab: General view of Trench 22 looking east, with the mud-brick platform [12] on left and the temenos wall on right; © J. Gill.

PLATE A.6 Mut al-Kharab: Trench 22 looking north-east, showing the corner of mud-brick platform [12] and adjacent truncated deposits; © C. Hope.

PLATE A.7 Mut al-Kharab: Trench 22 looking south, showing mud-brick platform [12] on left and truncated walls [21, 67 and 70] ; © C. Hope.

PLATE A.8 Mut al-Kharab: Trench 22 looking south-east, showing east section; © C. Hope.

PLATE A.9 Mut al-Kharab: Trench 22 Context 50/52, showing *in situ* vessels (Numbers 266, 272, 282 and 295); © C. Hope.

PLATE A.10 Mut al-Kharab: Trench 22 Context 50/52, showing *in situ* vessel (Number 313); © C. Hope.

PLATE A.11 Mut al-Kharab: Trench 28 Context 25, showing *in situ* vessels (Numbers 436–438); © C. Hope.

PLATE A.12 Mut al-Kharab: Trench 28 Room 2 looking west, showing earlier walls [26, 72] and stone basin [30] in the corner; © C. Hope.

PLATE A.13 Mut al-Kharab: Trench 35 Context 48 looking east, showing *in situ* vessel (Number 774) lying against face of wall [53]; © C. Hope.

PLATE A.14 Mut al-Kharab: View of mud-brick structure containing Trench 18 looking north-west; © J. Gill.

PLATE A.15 Mut al-Kharab: Trench 18 looking north, showing upper part of the foundation deposit; © C. Hope.

PLATE A.16 Mut al-Kharab: Trench 18 looking north, showing remains of wooden box within which the foundation deposit was contained; © C. Hope.

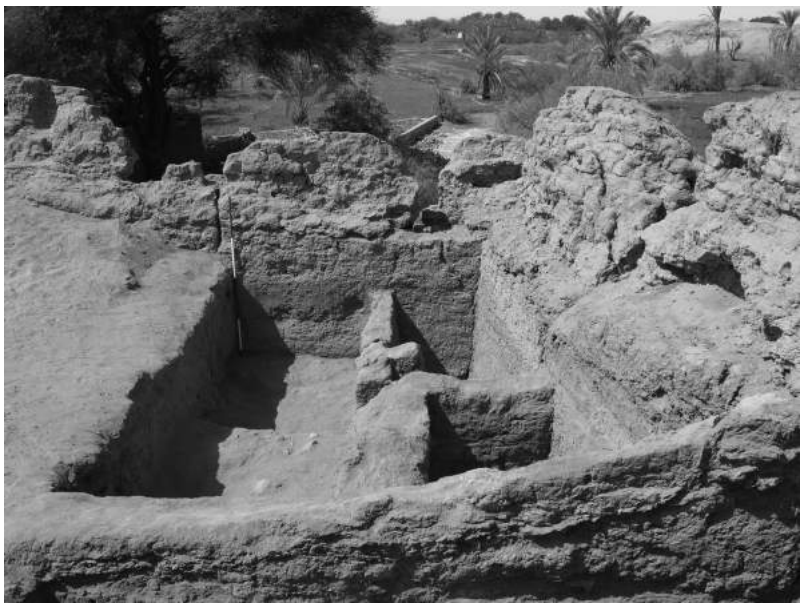


PLATE A.17 Mut al-Kharab: General view of Trenches 14 and 20 looking west, showing the north-west corner of the temenos wall; © C. Hope.

PLATE A.18 Mut al-Kharab: Trench 20 Context 35, showing *in situ* vessels and remains of ceramic ovens in the foreground; © C. Hope.

PLATE B.1 Number 8 (Form 36); © J. Gill.

PLATE B.2 Number 16 (Form 79); © J. Gill.

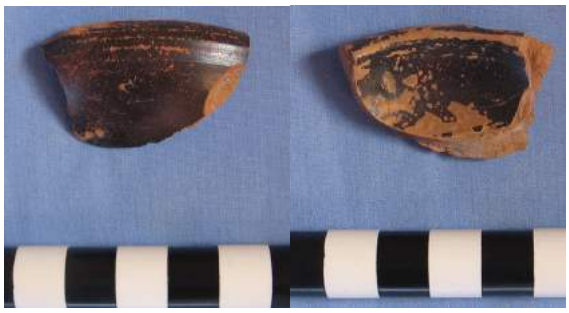


PLATE B.3 Number 51; © J. Gill.

PLATE B.5 Number 57 (Form 41a); © J. Gill.

PLATE B.4 Number 54 (Form 24b); © J. Gill.

PLATE B.6 Number 59 (Form 41b); © J. Gill.

PLATE B.7 Number 60 (Form 41a); © J. Gill.

PLATE B.8 Number 112 (Form 41c); © J. Gill.

PLATE B.9 Number 149 (Form 42); © C. Hope.

PLATE B.11 Number 191 (Form 47a); © J. Gill.

PLATE B.10 Number 167; © J. Gill.

PLATE B.12 Number 195 (Form 36); © J. Gill.

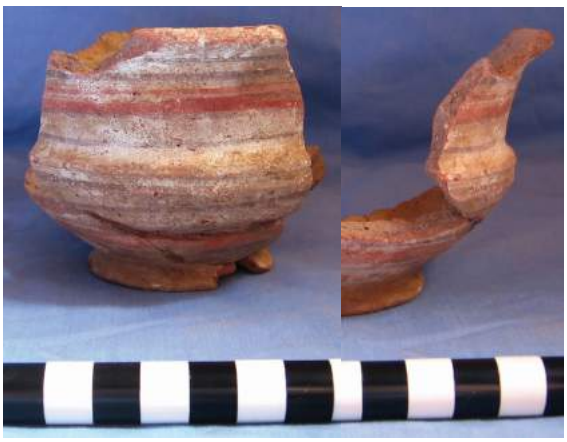


PLATE B.13 Number 201 (Form 40); © J. Gill.

PLATE B.14 Number 203 (Form 100); © C. Hope.

PLATE B.15 Number 211 (Form 69); © J. Gill.

PLATE B.16 Number 213 (Form 69); © C. Hope.

PLATE B.17 Number 220 (Form 64h); © J. Gill.

PLATE B.18 Number 250 (Form 30a); © J. Gill.

PLATE B.19 Number 251 (Form 30a); © C. Hope.

PLATE B.20 Number 282 (Form 65a); © J. Gill.

PLATE B.22 Number 291 (Form 94); © J. Gill.

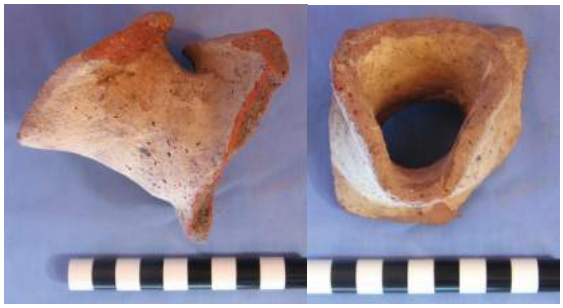


PLATE B.21 Number 289 (Form 83); © J. Gill.

PLATE B.23 Number 294 (Form 97); © J. Gill.

PLATE B.24 Number 295 (Form 89a); © C. Hope.

PLATE B.25 Number 310; © J. Gill.

PLATE B.26 Number 313 (Form 64a); © J. Gill.

PLATE B.27 Number 314 (Form 66); © J. Gill.

PLATE B.28 Number 327 (Form 22); © C. Hope.

PLATE B.29 Number 337 (Form 56a); © J. Gill.

PLATE B.30 Number 349 (Form 1); © C. Hope.

PLATE B.31 Number 375 (Form 9a); © J. Gill.

PLATE B.32 Number 384 (Form 24a); © J. Gill.

PLATE B.33 Number 408 (Form 47a); © J. Gill.

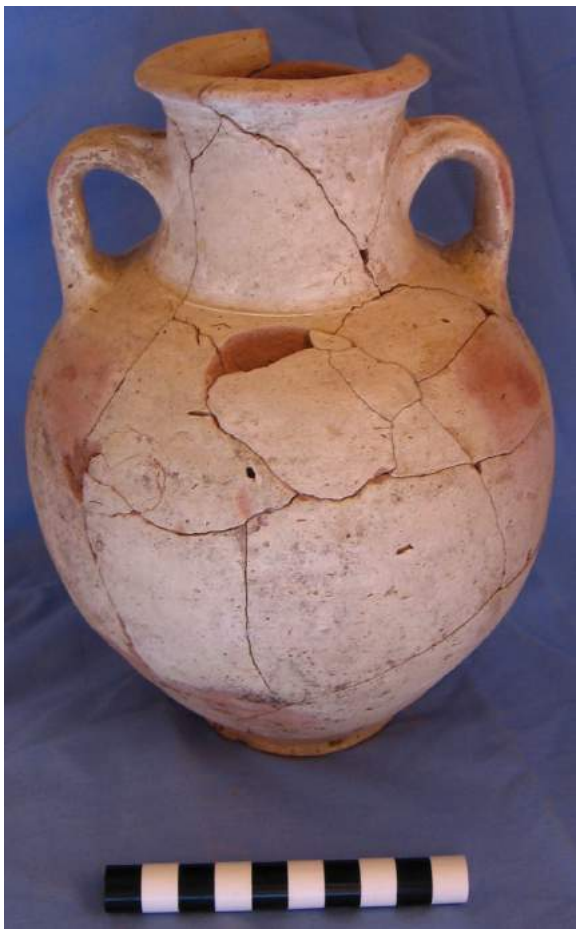


PLATE B.34 Number 437 (Form 74b); © J. Gill.

PLATE B.35 Number 438 (Form 65c); © J. Gill.

PLATE B.36 Number 478 (Form 67f); © J. Gill.

PLATE B.37 Number 487 (Form 80a); © C. Hope.

PLATE B.38 Number 530; © J. Gill.

PLATE B.39 Number 531; © J. Gill.

PLATE B.40 Number 600 (Form 66); © J. Gill.

PLATE B.41 Number 731; © J. Gill.

PLATE B.42 Number 752; © J. Gill.

PLATE B.43 Number 754; © J. Gill.

PLATE B.44 Number 756; © J. Gill.

PLATE B.45 Number 760 (Form 4a); © J. Gill.

PLATE B.46 Number 761 (Form 4a); © J. Gill.

PLATE B.47 Number 762 (Form 42?); © J. Gill.

PLATE B.48 Number 766 (Form 45b); © J. Gill.

PLATE B.49 Number 773; © J. Gill.

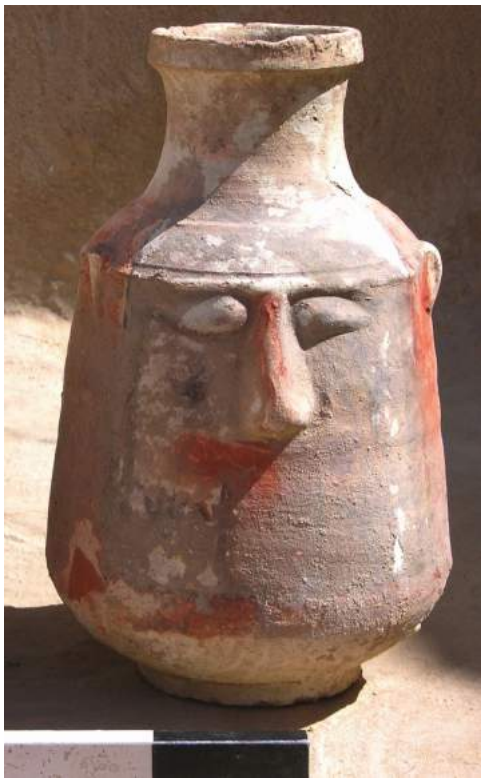


PLATE B.50 Number 774 (Form 79); © C. Hope.

PLATE B.51 Number 776 (Form 79?); © J. Gill.

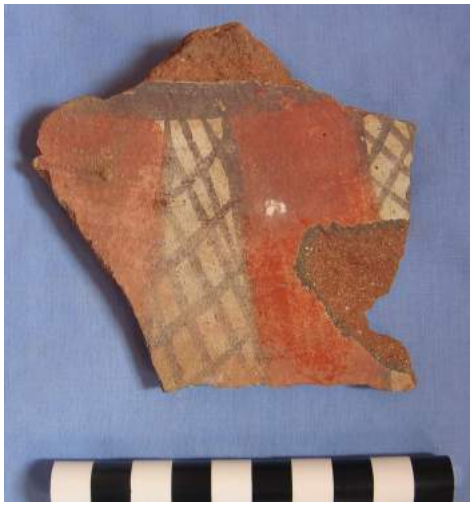


PLATE B.52 Number 777; © J. Gill.

PLATE B.53 Number 778; © J. Gill.

PLATE B.54 Number 780; © J. Gill.

PLATE B.55 Number 781; © J. Gill.

PLATE B.56 Number 782 (Form 65f); © J. Gill.

PLATE B.57 Fabric A1; © J. Gill.

PLATE B.58 Fabric A2; © M. Eccleston.

PLATE B.59 Fabric A5; © J. Gill.

PLATE B.60 Fabric A28; © M. Eccleston.

PLATE B.61 Fabric B3; © J. Gill.

PLATE B.62 Fabric A4; © J. Gill.

PLATE B.63 Fabric B1/10/15; © M. Eccleston.

PLATE B.64 Fabric B1/10/15; © J. Gill.

PLATE C.1 Reg. 22/042: Limestone statue from Trench 22 Context 29; © C. Hope.

PLATE C.2 Reg. 22/132: Faience scarab from Trench 22 Context 58; © C. Hope.

PLATE C.3 Plaster and ceramic moulds from Trench 18; © C. Hope.

PLATE C.4 Detail of plaster mould from Trench 18; © C. Hope.

PLATE C.5 Ceramic moulds with Demotic notations from Trench 18; © C. Hope.

PLATE C.6 Reg. 18/194: Plaster sculpture from Trench 18 Context 22; © C. Hope.

PLATE D.1 Site 22 (32/405-A8-1): View of the stone foundation wall and overlying baked-brick wall looking north; © J. Gill.

PLATE D.2 Site 22 (32/405-A8-1): View of packed-mud walls at northern end of the site looking south; © J. Gill.

PLATE D.3 Site 43 (‘Ain el-Azizi): General view of the temple temenos looking north; © J. Gill.

PLATE D.4 Site 43 ('Ain el-Azizi): General view of the temple temenos looking west; © J. Gill.

PLATE D.5 Site 43 ('Ain el-Azizi): Interior view of the temple temenos looking south-west, showing the test trench running from left to right; © J. Gill.

PLATE D.6 Site 43 ('Ain el-Azizi): Detailed view of the south-west corner of the temple temenos looking west; © J. Gill.

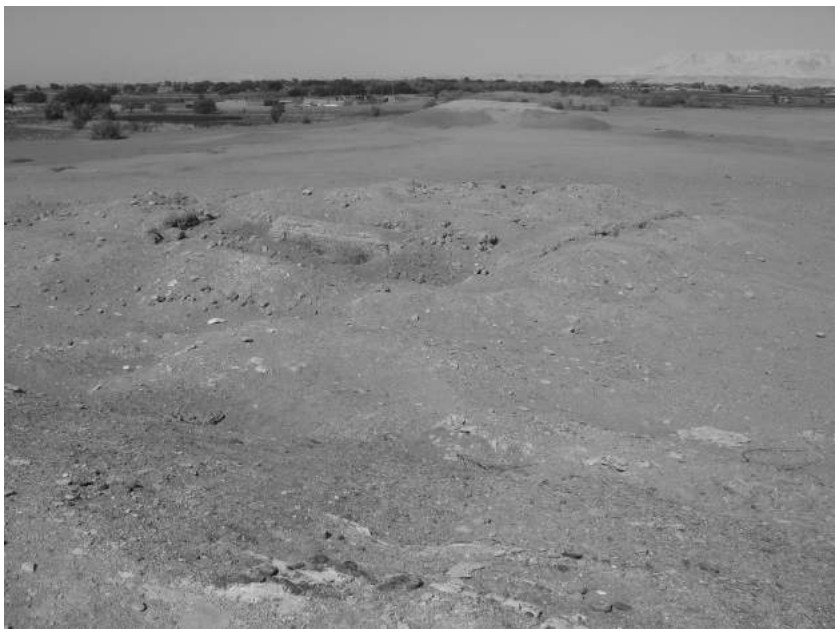


PLATE D.7 Site 45 (31/405-L4-2): General view of the temple looking north-west; © J. Gill.

PLATE D.8 Site 45 (31/405-L4-2): View of the sanctuary looking north-west; © J. Gill.

PLATE D.9 Site 46 (31/405-M4-1): General view of the tombs in the west mound looking south-east, with part of Site 45 (the temple) in the foreground; © J. Gill.

PLATE D.10 Site 46 (31/405-M4-1): View of a tomb shaft and entrance; © J. Gill.

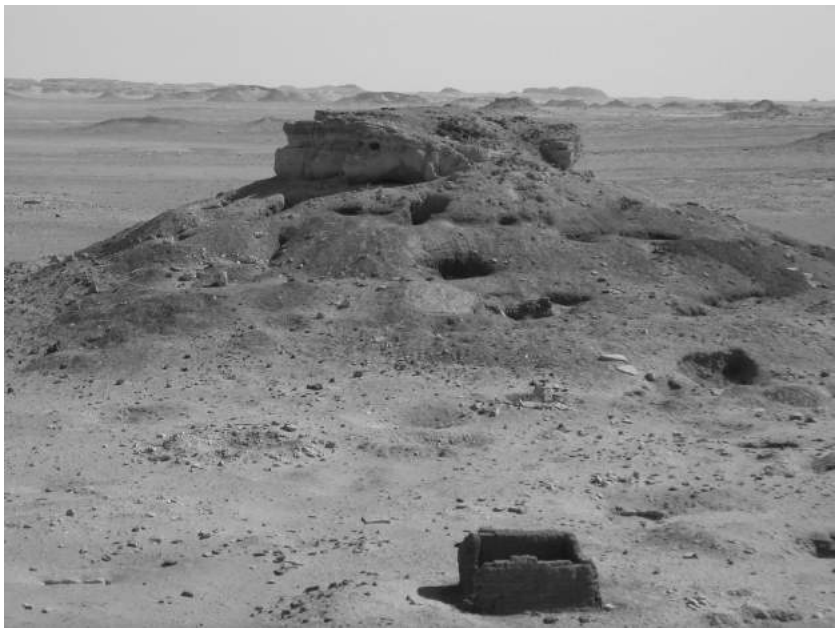


PLATE D.11 Site 50 (Beit el-Qaresh): General view of the rock-cut tombs looking south-east; © J. Gill.

PLATE D.12 Site 50 (Beit el-Qaresh): General view looking south-east, showing the mud-brick mausolea in the foreground and the tombs in the background; © J. Gill.

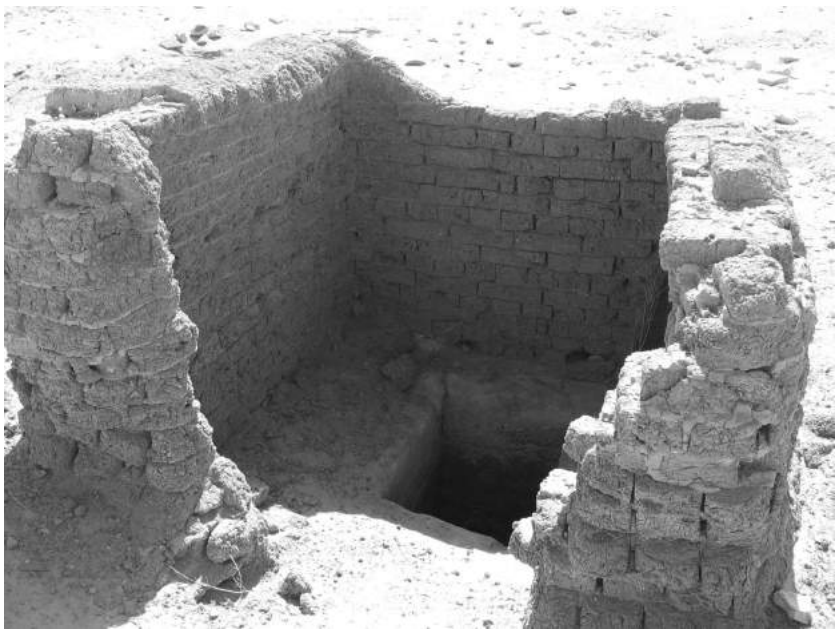


PLATE D.13 Site 50 (Beit el-Qaresh): View of a tomb shaft with remains of a mud-brick superstructure; © J. Gill.

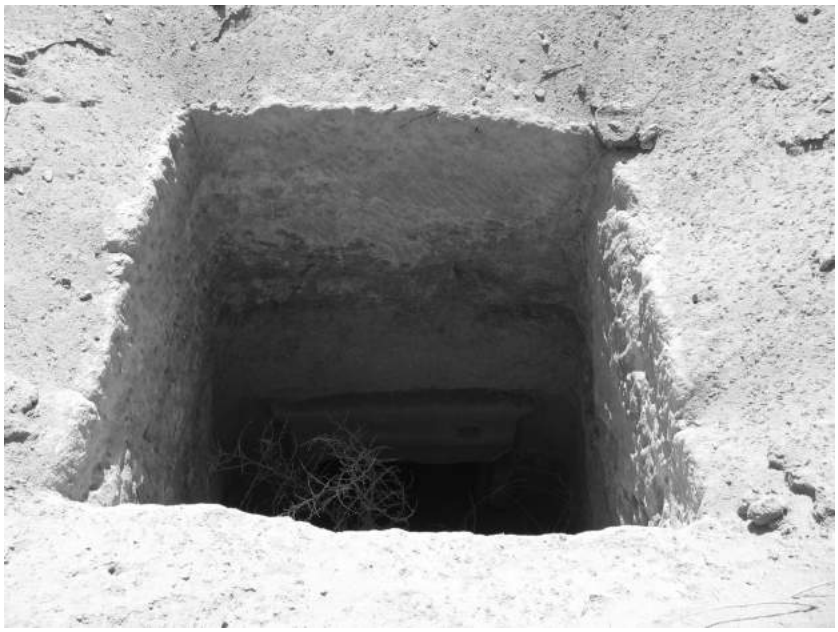


PLATE D.14 Site 50 (Beit el-Qaresh): View of a tomb shaft showing the carved entrance to the tomb chamber; © J. Gill.

PLATE D.15 Site 55 (Qasr el-Haleka): General view looking south-west; © J. Gill.

PLATE D.16 Site 55 (Qasr el-Haleka): General view looking west; © J. Gill.

PLATE D.17 Site 55 (Qasr el-Haleka): View of south-east corner; © J. Gill.

PLATE D.18 Site 55 (Qasr el-Haleka): Interior view looking east; © J. Gill.

PLATE E.1 Number 841 (Form 65e); © J. Gill.

PLATE E.2 Number 852; © DOP.

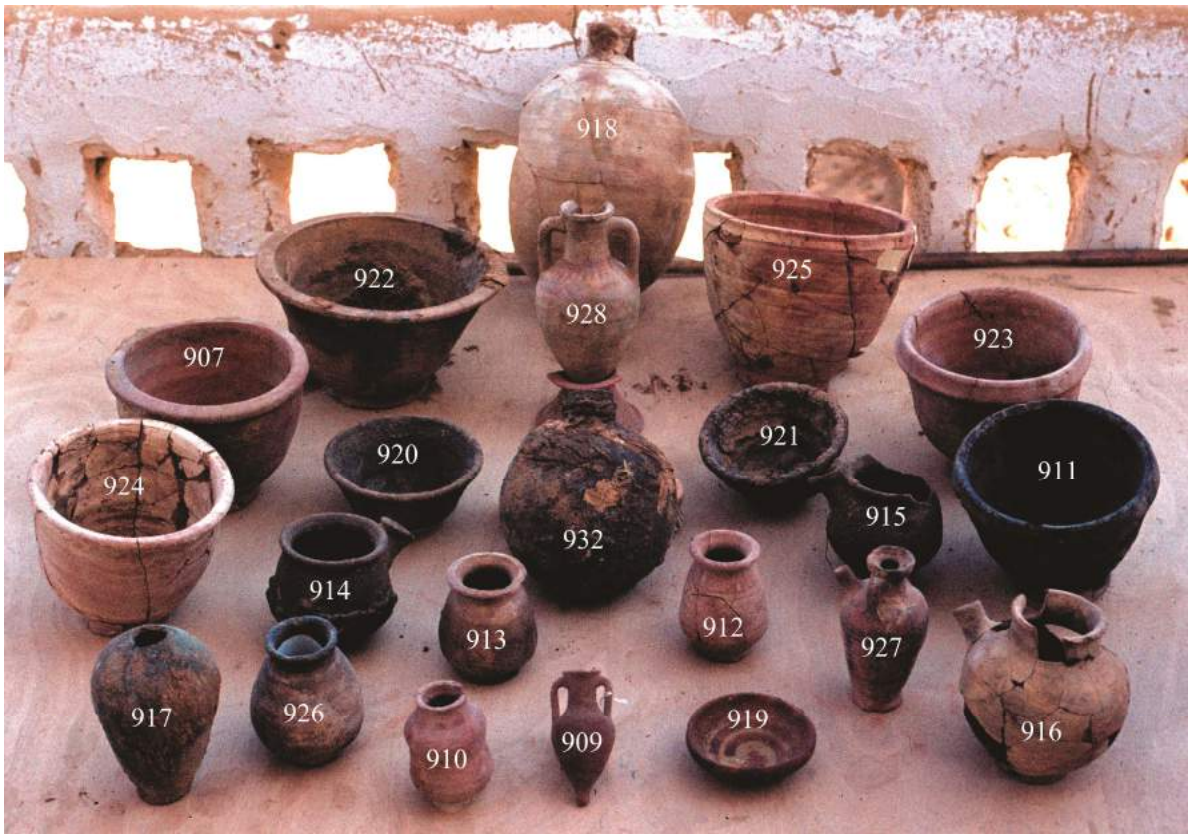


PLATE E.3 Pottery assemblage from Site 15 (Tomb 2); © DOP.

PLATE E.4 Number 909 (Form 78); © DOP.

PLATE E.5 Number 917 (Form 57); © DOP.

PLATE E.6 Numbers 912 (Form 52) and 926 (Form 51c); © DOP.

PLATE E.7 Numbers 916 (Form 87) and 914 (Form 84); © DOP.

PLATE E.8 Number 918 (Form 71); © DOP.

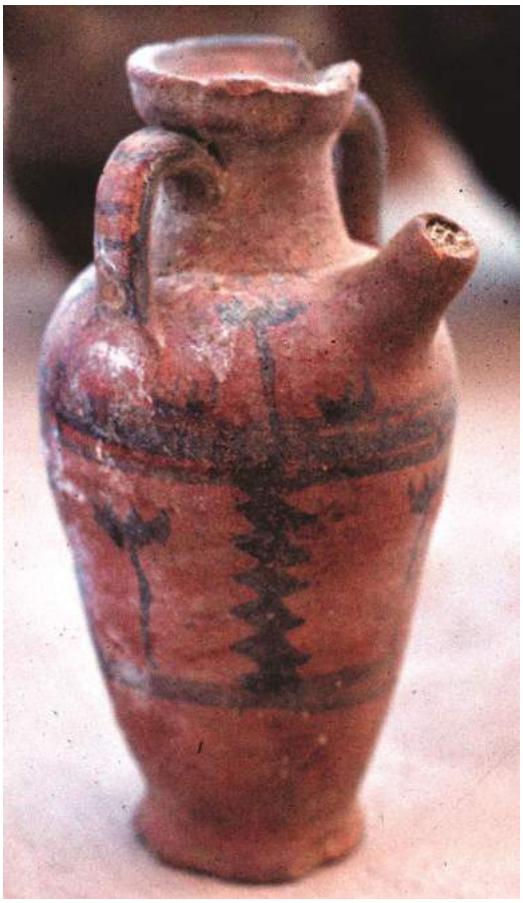


PLATE E.9 Number 927 (Form 88); © DOP.

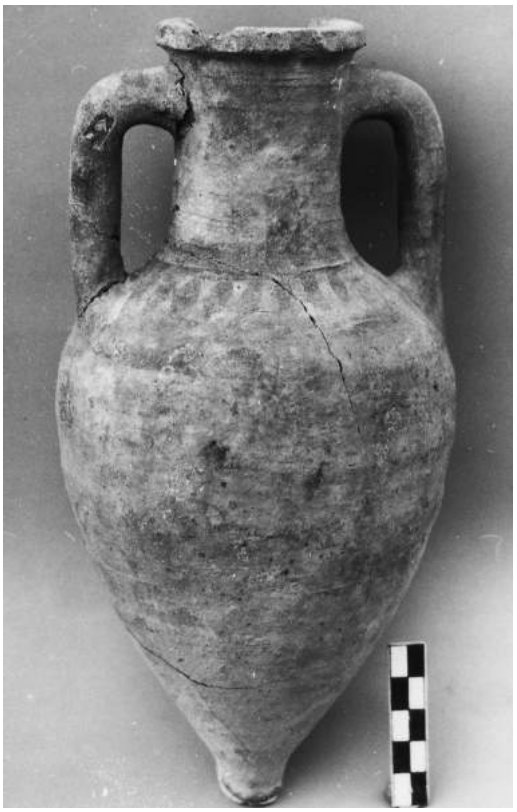


PLATE E.10 Number 928 (Form 78); © DOP.

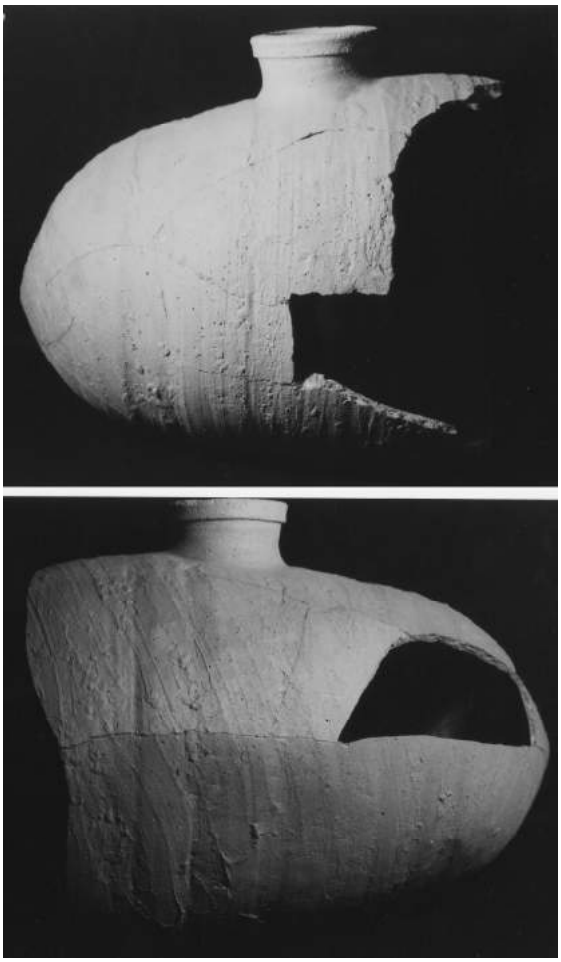


PLATE E.12 Number 1005 (Form 97); © DOP.

PLATE E.11 Number 1002; © J. Gill.

PLATE E.13 Number 1009 (Form 67); © DOP.

PLATE E.14 Number 1018 (Form 83); © DOP.

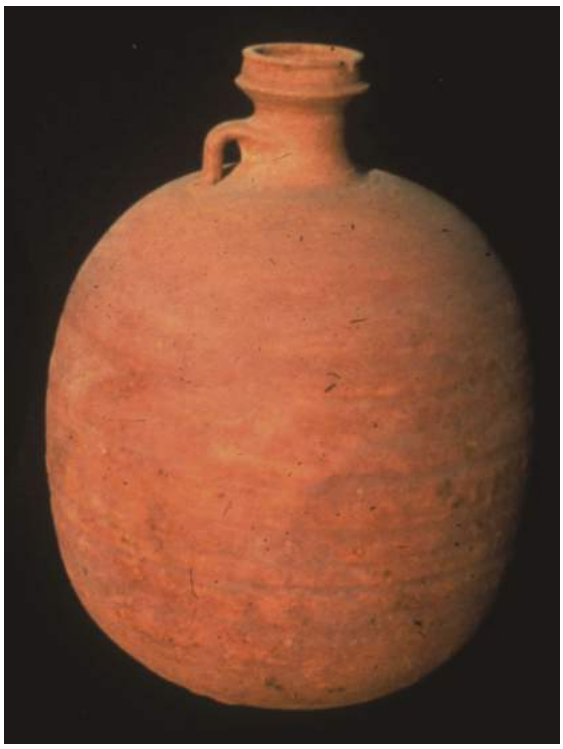


PLATE E.15 Number 1020 (Form 70); © DOP.

PLATE E.16 Number 1024 (Form 9c); © DOP.

PLATE E.17 Number 1027 (Form 50); © DOP.

PLATE E.18 Number 1030 (Form 77); © DOP.

PLATE E.19 Number 1031 (Form 56); © DOP.

PLATE E.20 Number 1037 (Form 20); © DOP.

PLATE E.21 Number 1039 (Form 37); © DOP.

PLATE E.22 Number 1053 (Form 30); © DOP.

PLATE E.23 Number 1040 (Form 81); © DOP.

PLATE E.24 Number 1042 (Form 93); © DOP.

PLATE E.25 Number 1059 (Form 74); © DOP.

PLATE E.26 Number 1061 (Form 30); © DOP.

PLATE E.27 Number 1076 (Form 63); © DOP.

PLATE E.28 Numbers 1084 (Form 38) and 1085 (Form 38); © DOP.

PLATE E.29 Number 1088a (Form 38); © DOP.

PLATE E.30 Number 1091 (Form 82); © DOP.

PLATE E.31 Number 1093 (Form 68); © DOP.

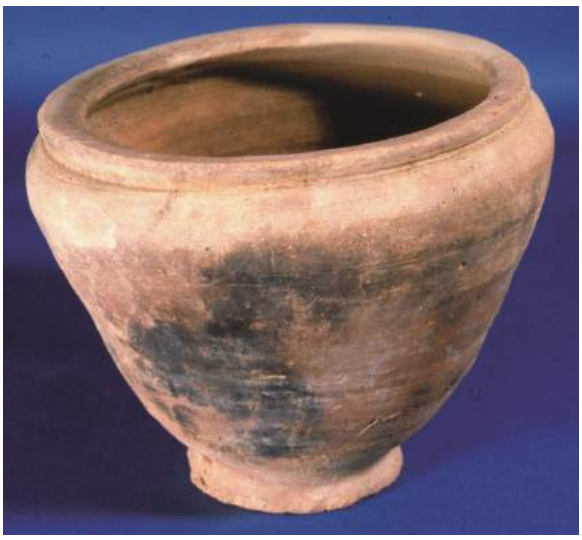


PLATE E.32 Number 1142 (Form 45b); © DOP.

PLATE E.33 Pottery assemblage from Site 42 (Tomb 1); © DOP.

PLATE E.34 Number 1154 (Form 30e); © DOP.

PLATE E.35 Number 1155 (Form 52); © DOP.

PLATE E.36 Numbers 1156 (Form 52), 1158 (Form 51b) and 1157 (Form 52); © DOP.

PLATE E.37 Number 1159 (Form 56a); © DOP.

PLATE E.38 Number 1160 (Form 58); © DOP.

PLATE E.39 Number 1161; © DOP.

PLATE E.40 Number 1226 (Form 24); © DOP.

PLATE E.41 Number 1266 (Form 25); © DOP.

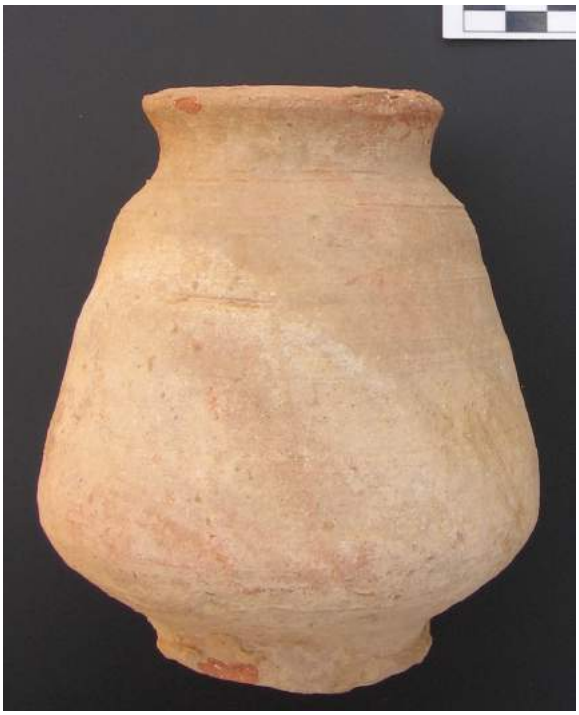


PLATE E.42 Number 1269 (Form 51d); © J. Gill.

PLATE E.43 Number 1270 (Form 65f); © J. Gill.

PLATE E.44 Number 1271 (Form 71); © J. Gill.